

# ARIZONA MEDICINE

Journal of ARIZONA MEDICAL ASSOCIATION

VOL. 14, NO. 4



APRIL, 1957

## TABLE OF CONTENTS

OFFICERS DIRECTORY .....	6A
SPECIAL COMMITTEES .....	7A
INDEX TO ADVERTISERS .....	43A

### ORIGINAL ARTICLES

MEDICAL PRACTICE AND STATISTICS .....	193
Vergil N. Slee, M.D., Ann Arbor, Michigan	
ADRENOCORTICAL FAILURE FOLLOWING LONG-TERM STEROID THERAPY .....	202
Drs. Joseph N. Plumer and Richard S. Armstrong, Tucson, Arizona.	
CHROMATOGRAPHY IN MEDICINE .....	206
Harold D. Palmer, M.D., Springfield, Illinois.	
LEIOMYOMA OF THE STOMACH .....	210
E. T. McCartney, M.C., M.B. and I. Stewart, M.D., Victoria Hospital, Keighley.	

### THE PRESIDENT'S PAGE

THE PRESIDENT'S PAGE .....	212
A. I. Podolsky, M.D., President, Arizona Medical Association.	

### EDITORIALS

THE NYLON NIGHTIE .....	213
COMPLAINTS TO THE EDITOR .....	218
ARIZONA MEDICINE JOURNAL WINS AWARD .....	218
LETTERS TO THE EDITOR .....	218

### THE HISTORY OF MEDICINE IN ARIZONA

COL. JOSEPH B. GIRARD .....	220
CORRECTION .....	220

### TOPICS OF CURRENT MEDICAL INTEREST

RX., DX., AND DRS. — Guillermo Osler, M.D. ....	222
MALPRACTICE SUITS — Jesse D. Hamer, M.D. ....	225
ORGANIZATION PAGE — Civics — Norman A. Ross, M.D. ....	228
REPORTING PERSONAL INJURIES — John J. Barton .....	230
FEDERAL AID TO EDUCATION — L. D. Sprague, M.D. ....	236
THE MONTH IN WASHINGTON .....	238
ARIZONA MEDICAL ASSOCIATION COMMITTEE ACTION .....	239
GOOD SAMARITAN HOSPITAL RECOVERY ROOM — Wallace A. Reed, M.D. ....	241
"... TO WORK EFFECTIVELY TOGETHER" — Leo E. Hollister, M.D. ....	242
CANCER OF THE COLON AND RECTUM .....	243
CANCER CAMPAIGN NOTICE NO. 55 .....	243
PROTECT YOURSELF AS WELL AS THE PUBLIC .....	244
PRACTICE SAFETY WITH PESTICIDES — J. N. Roney .....	245
BLUE SHIELD ACTS TO MEET NEW CHALLENGES .....	246
LOCATION OPPORTUNITIES — Arizona Medical Association .....	246
MEDICAL EDUCATION WEEK .....	247
CARDIAC MONITOR — Seymour Fisher, M.D. ....	248
FREE CARDIAC SURGERY PROGRAM .....	249
AMERICAN CANCER SOCIETY FELLOWSHIPS .....	249
FELLOWSHIPS IN ALLERGY .....	249
MEETING OF RADIOLOGICAL SOCIETY OF N. AMERICA — R. Lee Foster, M.D. ....	250
CANCER SEMINAR .....	257
AMA COUNCIL ON NATIONAL DEFENSE MEETS .....	257

### FUTURE MEETINGS

WORLD CONGRESS OF GASTROENTEROLOGY .....	258
NOTICE .....	258
CLINICAL HYPOXIA .....	258

### MEDICAL PROBLEMS

PHOENIX CLINICAL CLUB — J. M. Greer, M.D. ....	260
--	-----

### WOMAN'S AUXILIARY

LEGISLATION — Mrs. Paul S. Causey .....	267
---	-----

### DIRECTORY

LABORATORIES .....	37A
DRUGGISTS DIRECTORY .....	39A
SANATORIUM DIRECTORY .....	39A
PHYSICIANS DIRECTORY .....	41A

Published monthly by the Arizona Medical Association. Business office at 321 Mayer Heard Building, Phoenix, Arizona. Subscription \$5.00 a year, single copy 50c. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, Act of March 3, 1879.  
(The Editors of the Journal assume no responsibility for opinions expressed in the articles contributed by individual authors.)

## Directory

THE ARIZONA MEDICAL ASSOCIATION, INC.  
Organized 1892 826 Security Building  
234 NORTH CENTRAL AVE., PHOENIX, ARIZONA

### OFFICERS AND COUNCIL

Abe I. Podolsky, M.D. . . . . President  
1601 Fifth Avenue, Yuma, Arizona  
Carlos C. Craig, M.D. . . . . President-Elect  
1313 North Second Street, Phoenix, Arizona  
W. R. Manning, M.D. . . . . Vice President  
770 North Country Club Road, Tucson, Arizona  
Dermont W. Melick, M.D. . . . . Secretary  
1005 Professional Building, Phoenix, Arizona  
Clarence E. Yount, Jr., M.D. . . . . Treasurer  
F. O. Box 1626, Prescott, Arizona  
Lindsay E. Beaton, M.D. . . . . Speaker of the House  
1650 North Campbell Avenue, Tucson, Arizona  
Jesse D. Hamer, M.D. . . . . Delegate to AMA  
910 Professional Building, Phoenix, Arizona  
Robert E. Hastings, M.D. . . . . Alternate Delegate to AMA  
1014 North Country Club Road, Tucson, Arizona  
Darwin W. Neubauer, M.D. . . . . Editor-in-Chief  
720 N. Country Club Rd., Tucson, Arizona

### DISTRICT COUNCILORS

Joseph Bank, M.D. . . . . Central District  
800 North First Avenue, Phoenix, Arizona  
Frank W. Edel, M.D. . . . . Central District  
735 East McDowell Road, Phoenix, Arizona  
John A. Eisenbeiss, M.D. . . . . Central District  
926 E. McDowell Rd., Phoenix, Arizona  
Paul B. Jarrett, M.D. . . . . Central District  
2021 N. Central Ave., Phoenix, Arizona  
Donald F. DeMarse, M.D. . . . . Northeastern District  
P. O. Box 397, Holbrook, Arizona  
Walter Brazie, M.D. . . . . Northwestern District  
Masonic Building, Kingman, Arizona  
Frederick W. Knight, M.D. . . . . Southeastern District  
618 Central Avenue, Safford, Arizona  
Walter T. Hileman, M.D. . . . . Southern District  
23 East Ochoa Road, Tucson, Arizona  
William B. Steen, M.D. . . . . Southern District  
116 North Tucson Boulevard, Tucson, Arizona  
James T. O'Neil, M.D. . . . . Southwestern District  
113 West Second Street, Casa Grande, Arizona  
COUNCILOR AT LARGE  
Harry E. Thompson, M.D. . . . . Past President  
433 North Tucson Boulevard, Tucson, Arizona

### STANDING BOARDS - 1956-57

PROFESSIONAL BOARD: Ronald S. Haines, M.D., Chairman (Phoenix); Edward H. Bregman, M.D. (Phoenix); Robert H. Cummings, M.D. (Phoenix); Richard E. H. Duisberg, M.D. (Phoenix); Orin J. Farness, M.D. (Tucson); Joseph M. Kin-kade, M.D. (Tucson); Daniel W. Kittredge, Jr., M.D. (Flag-staff); Clarence H. Kuhlman, M.D. (Tucson); Charles S. Powell, M.D. (Yuma); Norman A. Ross, M.D. (Phoenix); Stuart Sanger, M.D. (Tucson); Milton C. F. Semoff, M.D. (Tucson); Lowell C. Wormley, M.D. (Phoenix).

PUBLIC RELATIONS BOARD: James T. O'Neil, M.D., Chair-man (Casa Grande); Donald A. Polson, M.D., Vice Chairman (Phoenix); Harry S. Beckwith, M.D. (Winslow); Paul H. Case, M.D. (Phoenix); Max Costin, M.D. (Tucson); Donald F. DeMarse, M.D. (Holbrook); Paul B. Jarrett, M.D. (Phoe-nix); Leo J. Kent, M.D. (Tucson); Herbert C. Kling, M.D. (Yuma).

### STANDING COMMITTEES - 1956-57

GRIEVANCE COMMITTEE: Harry E. Thompson, M.D., Chair-man (Tucson); Walter Brazie, M.D. (Kingman); Richard E. H. Duisberg, M.D. (Phoenix); Edward M. Hayden, M.D. (Tucson); Royal W. Rudolph, M.D. (Tucson); Oscar W. Thoeny, M.D. (Phoenix); Otto E. Utzinger, M.D. (Scotts-dale).

HISTORICAL AND OBITUARIES COMMITTEE: Nelson G. Bled-son, M.D. (Tucson); Howell S. Randolph, M.D., Historian (Phoenix); Robert S. Flinn, M.D. (Phoenix); D. W. Melick, M.D. (Phoenix); Darwin W. Neubauer, M.D. (Tucson).

INDUSTRIAL RELATIONS COMMITTEE: Lindsay E. Beaton, M.D., Chairman (Tucson); Francis M. Findlay, M.D. (King-man); Robert E. Hastings, M.D. (Tucson); Joseph Saba, M.D. (Bisbee); Leo L. Tuveson, M.D. (Phoenix).

LEGISLATION COMMITTEE: J. D. Hamer, M.D., Chair-man (Phoenix); Charles Kalil, M.D., Vice Chairman (Phoe-nix); Floyd B. Brullier, M.D. (Wickenburg); Nelson D. Bray-ton, M.D. (Miami); Walter Brazie, M.D. (Kingman); Ellis V. Browning, M.D. (Springville); Zeph B. Campbell, M.D. (Phoenix); Owen L. Cranmer, M.D. (Cottonwood); Frank W. Edel, M.D. (Phoenix); Carl H. Gans, M.D. (Morenci); Elmer L. Heap, M.D. (Florence); Stanton C. Lovre, M.D. (Clifton); Charles H. Karr, M.D. (Safford); Leo J. Kent, M.D. (Tucson); Millard Jeffrey, M.D. (Phoenix); Delmar R. Mock, M.D. (Patagonia); Donald E. Nelson, M.D. (Safford); William A. Phillips, M.D. (Yuma); C. C. Piepergerdes, M.D. (Phoenix); Wallace A. Reed, M.D. (Phoenix); Leslie B. Smith, M.D. (Phoenix); LaVern D. Sprague, M.D. (Tucson); Arthur C. Stevenson, M.D. (Phoenix); C. R. Swackhamer, M.D. (Globe); Thomas C. Wilmoth, M.D. (Phoenix); Myron G. Wright, M.D. (Winslow); Roy O. Young, M.D. (Flagstaff); P. Paul Zinn, M.D. (Bisbee).

MEDICAL DEFENSE COMMITTEE: Ernest A. Born, M.D., Chairman (Prescott); Preston T. Brown, M.D. (Phoenix); Harold W. Kotli, M.D. (Tucson).

PUBLISHING COMMITTEE: Darwin W. Neubauer, M.D., Chair-man (Tucson); R. Lee Foster, M.D. (Phoenix); Frederick W. Knight, M.D. (Safford); Donald E. Nelson, M.D. (Saf-ford).

SCIENTIFIC ASSEMBLY COMMITTEE: Carlos C. Craig, M.D., Chairman (Phoenix); Joseph Bank, M.D. (Phoenix); David E. Engle, M.D. (Tucson); Francis M. Findlay, M.D. (King-man); W. R. Manning, M.D. (Tucson); Donald E. Nelson, M.D. (Safford); Claude H. Peterson, M.D. (Winslow); E. Henry Running, M.D. (Phoenix); Robert A. Stratton, M.D. (Yuma); Ashton B. Taylor, M.D. (Phoenix).

## Woman's Auxiliary

OFFICERS TO THE AUXILIARY TO THE ARIZONA  
MEDICAL ASSOCIATION - 1956-1957

President . . . . . Mrs. Oscar W. Thoeny  
721 Encanto Dr., S. E., Phoenix  
President-Elect . . . . . Mrs. Charles Powell  
698 9th Avenue, Yuma  
1st Vice President . . . . . Mrs. Melvin W. Phillips  
829 Flora Ave., Prescott  
2nd Vice President . . . . . Mrs. Hiram D. Cochran  
2716 E. 4th St., Tucson  
Treasurer . . . . . Mrs. Ian M. Chesser  
2909 E. Alta Vista, Tucson  
Recording Secretary . . . . . Mrs. Claire W. Johnson  
305 E. Tuckey Lane, Phoenix  
Corresponding Secretary . . . . . Mrs. Paul Jarrett  
501 E. Pasadena, Phoenix  
Director (1 year) . . . . . Mrs. Paul Jarrett  
501 E. Pasadena, Phoenix  
Director (1 year) . . . . . Mrs. Roy Hewitt  
190 Camino Miramonte, Tucson  
Director (2 years) . . . . . Mrs. John S. Stanley  
201 1st Avenue, Yuma

### STATE COMMITTEE CHAIRMEN - 1956-57

Chaplain . . . . . Mrs. James Moore  
305 W. Granada, Phoenix  
Bulletin . . . . . Mrs. William R. Shepard  
Box 1187, Prescott  
Civil Defense . . . . . Mrs. Thomas W. Woodman  
3203 Country Club Manor, Phoenix  
Finance . . . . . Mrs. C. E. Henderson  
3125 N. 18th Ave., Phoenix  
Historian . . . . . Mrs. Thomas H. Bate  
610 W. North View Ave., Phoenix  
Legislation . . . . . Mrs. Paul Causey  
220 N. Alvarado Rd., Phoenix  
Today's Health . . . . . Mrs. William A. Phillips  
Yuma  
Nominating . . . . . Mrs. Brick Storts  
3228 E. Fifth St., Tucson  
Mental Health . . . . . Mrs. R. W. Hussong  
44 E. Pierson, Phoenix  
Nurse Recruitment . . . . . Mrs. Donald McLeod  
2801 E. Kleindale, Tucson  
Parliamentarian . . . . . Mrs. Roy Hewitt  
190 Camino Miramonte, Tucson  
Publicity . . . . . Mrs. F. C. Jordan  
302 W. Cambridge, Phoenix  
Public Relations . . . . . Mrs. Robert H. Cummings  
5830 E. Arcadia Lane, Phoenix  
Revisions . . . . . Mrs. Jesse Hammer  
1819 N. 11th Ave., Phoenix  
Student Nurse Loan Fund . . . . . Mrs. Donald Polson  
1817 Palmcroft Dr., N.W. Phoenix  
Medical Education Fund . . . . . Mrs. Robert A. Stratton  
1928 5th Ave., Yuma  
Newsletter . . . . . Mrs. Robert B. Leonard  
3041 N. Evergreen, Phoenix

### COUNTY PRESIDENTS AND OFFICERS 1956-57

COCONINO COUNTY  
President . . . . . Mrs. Jay L. Sitterley  
206 W. Hunt, Flagstaff  
Vice President . . . . . Mrs. Roy Young  
Flagstaff  
Secretary . . . . . Mrs. Herbert Fredell  
Flagstaff  
Treasurer . . . . . Mrs. Leo Schnurr  
Sedona

GILA COUNTY  
President . . . . . Mrs. William E. Bishop  
605 South Third Street, Globe, Arizona  
Vice President . . . . . Mrs. Albert J. Harris  
98 East Cedar Street, Globe, Arizona  
Secretary-Treasurer . . . . . Mrs. Robert U. Horan  
Box 1296, Miami, Arizona

MARICOPA COUNTY  
President . . . . . Mrs. John A. Eisenbeiss  
3121 N. 17th Avenue, Phoenix  
President-Elect . . . . . Mrs. L. A. Stapley, Jr.  
1604 W. Clarendon, Phoenix, Arizona  
1st Vice President . . . . . Mrs. Philip Windrow  
99 W. Windsor, Phoenix, Arizona  
2nd Vice President . . . . . Mrs. Shaw McDaniel  
114 E. Tuckey Lane, Phoenix, Arizona  
Recording Secretary . . . . . Mrs. Chester Bennett  
30 W. Ocotillo Road, Phoenix, Arizona  
Corresponding Secretary . . . . . Mrs. Howard Purcell  
100 E. Ocotillo Road, Phoenix, Arizona  
Treasurer . . . . . Mrs. L. L. Stofa  
204 E. Pomona Road, Phoenix, Arizona

PIMA COUNTY  
President . . . . . Mrs. Louis Hirsch  
Route 5, Box 362, Tucson  
President-Elect . . . . . Mrs. John Bennett  
2325 E. Waverly, Tucson  
1st Vice President . . . . . Mrs. Ina Chesser  
2909 East Alta Vista, Tucson  
2nd Vice President . . . . . Mrs. William Goodin  
4501 E. San Carlos Place, Tucson  
Recording Secretary . . . . . Mrs. Donald McLeod  
2801 E. Kleindale, Tucson  
Corresponding Secretary . . . . . Mrs. Arthur Dudley  
2910 E. Hardy Place, Tucson  
Treasurer . . . . . Mrs. George Boone  
3762 Calle DeSoto, Tucson

YAVAPAI COUNTY  
President . . . . . Mrs. Louis A. Packard  
342 Park Avenue, Prescott  
Vice President . . . . . Mrs. William H. Marlowe  
520 Highland Ave., Prescott  
Treasurer . . . . . Mrs. Joseph P. McNally  
208 Grove Ave., Prescott

# ARIZONA MEDICINE

*Journal of Arizona Medical Association*

VOL. 14, NO. 4



APRIL, 1957

## Original ARTICLES

### *Medical Practice and Statistics\**

By Vergil N. Slee, M.D.

Ann Arbor, Michigan

FOR YEARS we have all listened to the statistical reports of hospitals as regular features of the medical staff meetings. About six years ago, I developed more than a casual interest in these reports and in general problems of hospital statistics.

When one takes a critical look at the monthly statistical report of a hospital he begins to ask questions about the accuracy of the report, about its meaning, and what is more important, about its value. Presumably the report is issued for the purpose of telling the medical staff of the hospital whether or not its practice of medicine meets acceptable standards. Traditional standards, such as the 4 percent net death rate, may be found in any of the books on hospital administration and medical record keeping.

The interesting thing about these standards is that one can refer to earlier editions of the various textbooks for twenty or thirty years back and find the same standards promulgated year after year. This is immediately disturbing, since we like to think that we are not practicing the same type of medicine today that we did thirty years ago.

A rather obvious solution to this problem is to compare the statistics, not with the thirty-year old textbook, but with reports from other similar hospitals for the same periods in history, when physicians were taking care of patients

with the same armamentaria and under the same influences.

So in 1950, we began to compare the regular statistical reports of a small group of some fifteen hospitals in Southwestern Michigan. To do this we adopted a system which had been started in Rochester, New York, by Paul Lembcke, M.D.

As soon as we had the first six months of data and comparisons at hand we knew that we had struck pay dirt. One day a friend who is an undertaker, and whose son was going to embalming school, said that he had heard that we had some information on a number of hospitals in our general territory in Michigan. He wondered whether or not we could help him solve the problem about the future of his son, the student mortician. The father didn't know whether he should expand his own firm to make room for the son in the business, or if it would be wiser to set up another firm in one of the neighboring cities.

Instead of looking at the deaths in the various hospitals, we took a look at another routine item from the monthly report, namely the percentage of patients reported as recovered. Although death is not the exact opposite of recovery, the implication is rather strong that in the community where patients don't recover, the embalmer will find a more fertile field.

In Illustration 1\*, we see a gratifying confirmation of our hunch that we could get useful

\*A speech presented at the Washington University Medical Alumni Association Annual Clinics Session, St. Louis, Missouri, 1 June 1956. Doctor Slee is Director of the Commission on Professional and Hospital Activities, Inc., First National Building, Ann Arbor, Michigan. The Commission is a non-profit corporation sponsored by the American College of Physicians, American College of Surgeons, American Hospital Association, Southwestern Michigan Hospital Council, and partially supported by a grant from the W. K. Kellogg Foundation.

\*Illustrations 1, 2, 4, 5 and 6 first appeared in the *Annals of Internal Medicine*, 44:1, January 1956, page 144, in a paper by Eisele, Slee, and Hoffmann, "Can the Practice of Internal Medicine be Evaluated?"

data from hospital statistics. Obviously it would be wiser to set up shop where the percentage of recovered patients is low, that is, in the neighborhood of hospital No. 14 than it would be where the percentage is as high as it seems to be in hospital No. 1.

We were not entirely satisfied, however, since the data seemed to be a bit crude. So we looked at the performance of individual doctors from hospital No. 13 which generally has a pretty desirable recovery rate, from the standpoint of an undertaker, that is, and Illustration 2 was the result. Obviously, a man could make a grievous error even if he established the business in this city and then made the mistake of becoming friendly with doctors 1 and 2, when he probably could just as well have joined a different service club and made friends with doctors 18 and 19.

Things like this shook our faith in customary hospital statistics. When we looked into the sources of such information, we found that they were mixtures of the honest opinions of conscientious doctors, the off-hand judgments of physicians given at the insistence of a record librarian who had to have the information to complete a report, and finally, the decisions made by the well-meaning medical record librarian who didn't want to bother the doctor.

Of course, this particular hospital statistic appears to us to be of no value, and in our work we have thrown it out completely. But we still thought that the general idea behind the computations of various rates and their comparisons was sound. We didn't want to be guilty of throwing the baby out with the bath.

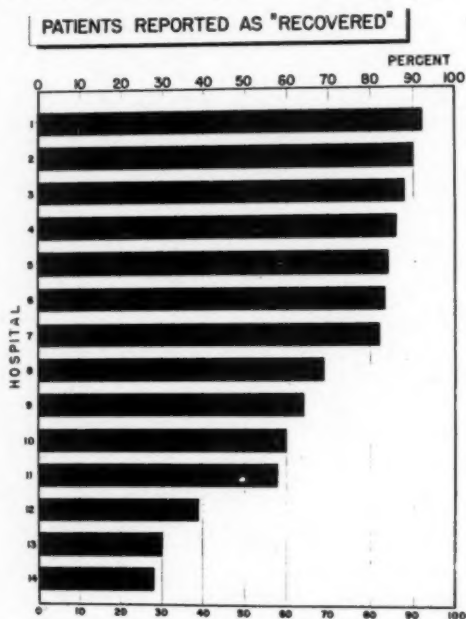
So we proposed certain changes in our approach to this whole problem as follows:

- 1) We would deal with information on individual patients, rather than on hospitals.
- 2) We would employ a statistician to put the work on a professional basis.
- 3) We would set up a data processing and statistical center to serve the group of hospitals.
- 4) We would use IBM machines to process the data.

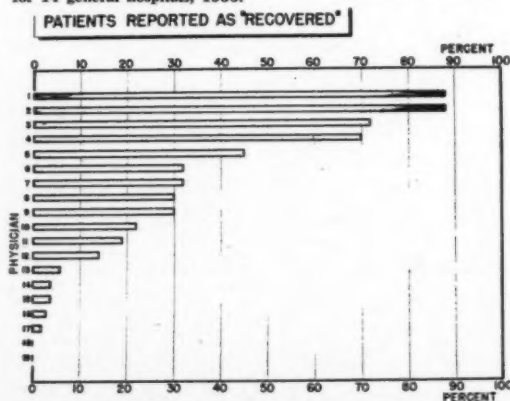
Crude though our early attempts had been, they had proved the impossibility of using hand methods for eliciting useful statistical information from clinical records. Consequently, we were able to obtain support for the new system

from the W. K. Kellogg Foundation who had helped us with our original program. About three and a half years ago we put the study on a modern basis.

Instead of statistical reports from each of our participating hospitals, we are furnished with a brief abstract of each clinical record. These are prepared by the record librarians. They contain, as nearly as possible, only factual material, with no opinions from the record librarians, or anybody else except the physicians taking care of the cases. From this abstract, or code sheet, we make an IBM card which we use to prepare monthly statistical reports for each hospital, to



1. Per cent of patients reported as "recovered," by hospital, for 14 general hospitals, 1953.



2. Per cent of patients reported as "recovered," by physician, for physicians of hospital 13 (Illustration 1).



prepare the disease, operation, physician and surgeon indexes for each hospital, and statistical studies comparing all hospitals.

With the new system we found that the differences between hospitals and physicians showed up even more clearly than they had before, and with more meaning, and we found that it was valuable to have such information. Following are illustrations of some of the things we have turned up in the last two or three years.

For example, we asked our statistical center the question: "Are there differences in the rates of complications in delivery patients among the hospitals?" Illustration 3 presents the answer. In hospital No. 15 nearly 35 percent of all the deliveries were reported as complicated deliveries whereas in hospital No. 1 only 1.6 percent were so reported. We would be very surprised if the problems of bearing children were this different in these various communities. So here, as in many instances, the statistical comparison furnished an answer of sorts which intrigued us and raised questions as to the real facts.

Investigation showed that there were at least two factors involved. One was that doctors varied in their definitions of prolonged labor so that one might say that any labor which went over 12 hours was prolonged while another would call it prolonged after 24 hours had elapsed. This failure to have an acceptable definition and to use the same terminology was introducing a bias into the data.

But another interesting thing was also involved which had to do with the collection of data. We found that the medical record librarians in hospitals 14 and 15 had gotten it into their heads that the use of low forceps indicated that the labor was prolonged or that there was some disproportion, and also that an episiotomy was interpreted as a laceration. Discussion among the medical staffs led to some better agreement on definitions and the medical record librarians were persuaded to code from the diagnoses as expressed by the physicians rather than their own interpretations.

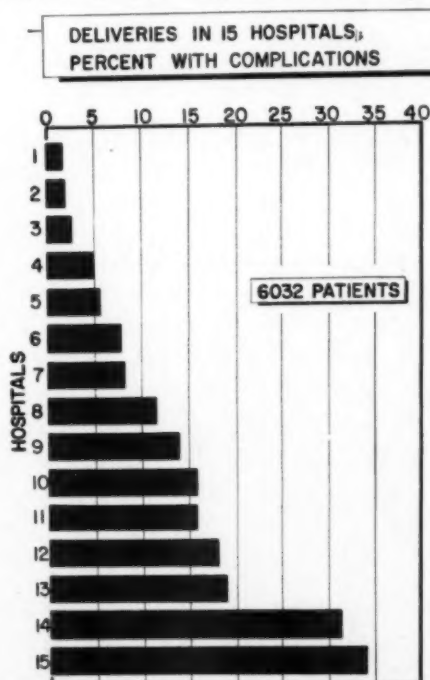
In another instance, we started with the idea that anyone with an acute lower respiratory infection who was sick enough to be hospitalized for treatment of that condition was quite likely to have a chest x-ray in the hospital. We actually

found that about 76 percent of all such patients did, but in one hospital 95 percent of these patients were x-rayed while in another only 45 percent were x-rayed. Illustration 4 shows the distribution.

When we looked at the performance of individual physicians, shown in Illustration 5, we found that for several physicians all patients were x-rayed, while at the other end of the scale, there was one physician who x-rayed only one out of every four patients he treated. It was suggested that the patients who were not x-rayed might represent infants, or patients in extremis who died before they could be x-rayed. Review of the cases did not confirm either of these suspicions.

In one hospital with a rather low percentage the staff felt that the chart did not correctly describe their performance, so they investigated and found that a large proportion of x-ray reports were never getting onto the clinical records. When this was corrected not only was the percentage better, but a serious defect in the hospital administration was eliminated.

In another hospital the report led to a good deal of discussion about when chest x-rays were



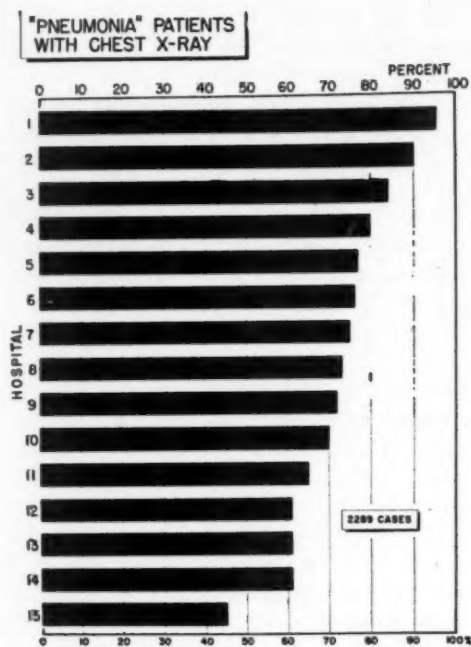
3. Per cent of delivery patients reported as having complicated deliveries by hospital, for 15 general hospitals, July-December 1954.

indicated. Some of the comments were that if a man required a chest x-ray to diagnose every pneumonia, he wasn't a very good doctor. Others championed the idea that every patient suspected of pneumonia should have one chest x-ray, and if the diagnosis was established, a second x-ray should be taken later to determine whether resolution had taken place and to be sure no other disease was obscured by the inflammation. No conclusions were reached at the staff meeting but as you will note from Illustration 6, for the next year, at least, the chest x-ray percentage went up a little over 10 percent. This might mean that there was a tendency among the physicians to follow the leader and try to achieve a higher score, or it might mean that they were giving a little more serious attention to the care the patients were getting.

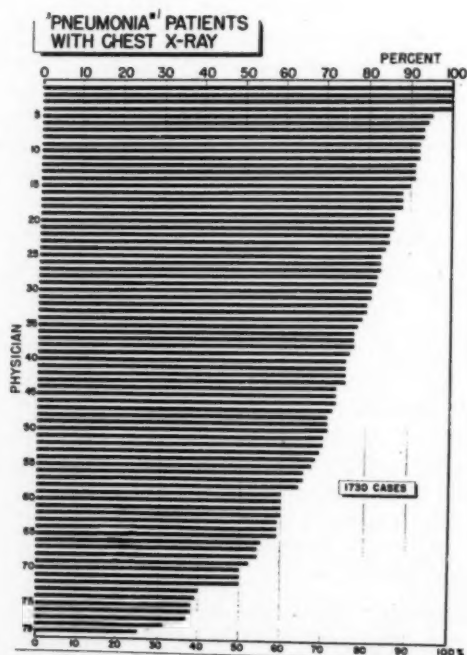
In the pneumonia illustration we have shown first, a problem in hospital administration and second, some real differences in medical practice, in contrast with the delivery illustration in which we detected some problems in medical terminology as well as some in record collecting.

Illustration 7 presents the average ages of the women having hysterectomies in the various hospitals. The overall average age was about 43 years. However, in one hospital the average was a little over 50 years whereas in another hospital of about the same size, the average age was just over 37 years. The latter hospital accounted for about  $\frac{1}{3}$  of the hysterectomies but about only  $\frac{1}{6}$  of the total discharges. So far as we can determine, this illustrates a definite difference in medical philosophy as to the indications for hysterectomy.

Illustration 8 presents pathologists' reports in hysterectomies. In this figure are shown some 1,190 hysterectomies in the period of one year for which tissue reports are available from nine pathologists serving 20 hospitals. Pathologist No. 1 reported unequivocal pathological indications for the surgery in 98 percent of the cases, while pathologist No. 9, at the extreme, reported such findings in only 44 percent of the cases. Or, to read the rest of the graph, in those cases served by pathologist No. 1, indications for surgery were purely clinical in only about two percent of the cases, while for pathologist No. 9, the clinician bore the responsibility for over half of the cases. Here, again, we



4. Per cent of patients with acute lower respiratory infections ("pneumonia") having chest x-ray during hospitalization, by hospital, for 15 general hospitals, January 1953 through June 1954.



5. Per cent of patients with acute lower respiratory infections ("pneumonia") having chest x-ray during hospitalization, by physicians, for physicians treating 10 or more "pneumonia" patients in 15 general hospitals, January 1953 through June 1954.

suspect that this represents a difference in philosophy, and to some extent terminology, on the part of the pathologist.

Illustration 9 is taken from acute appendicitis. We wondered if the pathologists serving our participating hospitals were reporting complications of appendicitis in roughly the same proportions of cases. By "complications" we meant peritonitis or perforation. We knew of no reason to suspect that there would be large differences in the occurrence of perforation or peritonitis among the patients served by these different hospitals. Commonly, the surgeon waits for the pathology report before writing the final diagnosis on the clinical record. Therefore, we felt that the final diagnoses in these appendectomy cases would probably reflect the pathologist's diagnoses, particularly with reference to peritonitis and, to some extent, microscopic perforation. It may be seen that the occurrence of "complicated" appendicitis varied from 6 percent for one group to 33 percent in another group. This we strongly suspected was the result of differences in terminology and description on the part of pathologists.

This assumption would be valid, of course, only if the surgeon really is influenced by the tissue report. One way to measure this was to look up the cases reported by the surgeons as acute appendicitis in which the pathologist reported normal tissue. The findings are shown in Illustration 10. This is more striking than the preceding.

In only three hospitals did the surgeons take the pathologists' diagnosis of normal tissue as final, and report cases as acute appendicitis ONLY when the tissue was reported diseased. In contrast, note that in three hospitals, 1, 2, and A, 30 percent or more of the appendectomies carried a diagnosis of acute appendicitis in the face of normal tissue reported by the pathologist. If the surgeon were entering his final diagnosis on the basis of the tissue, such cases should carry a diagnosis of some other pathological condition, or right lower quadrant pain of undetermined cause. What this chart then shows us is that the pathologist may not be as influential as we generally believe.

Here again, instead of answering questions with any degree of finality, we have opened up several new ones for investigation, since this type of problem will yield to a direct

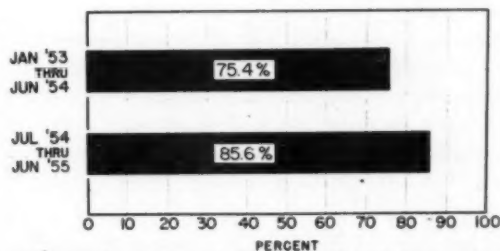
frontal attack.

In view of the present sensitivity about lawsuits, workmen's compensation and insurance, one expects to find every fracture and dislocation, and most sprains and concussions x-rayed in the case of hospitalized patients.

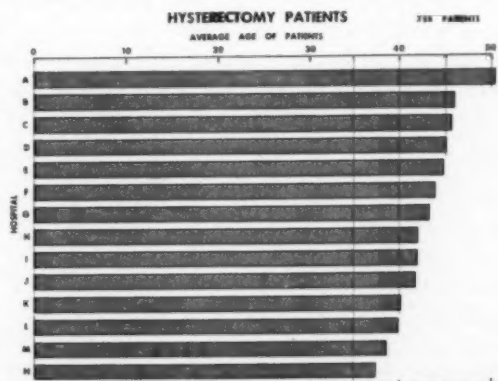
As can be seen from Illustration 11, a surprising 12 percent of all fractures were not x-rayed; 12.9 percent of dislocations, and 21.1 percent of head injuries (of which over one-half were concussions) were not x-rayed. We believe this represents an indication of medical practice and cannot be explained on the basis of differences in patients.

One particular area of medical practice in which great differences in philosophy appear is the use of whole blood transfusions. We have looked at this therapy in a number of medical and surgical conditions for a number of hospitals. A hospital which uses a lot of blood in deliveries will also use a lot of blood in medical conditions and in various types of surgery. A hospital which uses very little blood in one

#### "PNEUMONIA" PATIENTS WITH CHEST X-RAY



6. Comparison of per cent of patients with acute lower respiratory infections ("pneumonia") x-rayed before data from Illustrations 4 and 5 were displayed to medical staff (January 1953 through June 1954) and after (July 1954 through June 1955).



7. Average age of hysterectomy patients, by hospital, for 14 general hospitals, 1953.

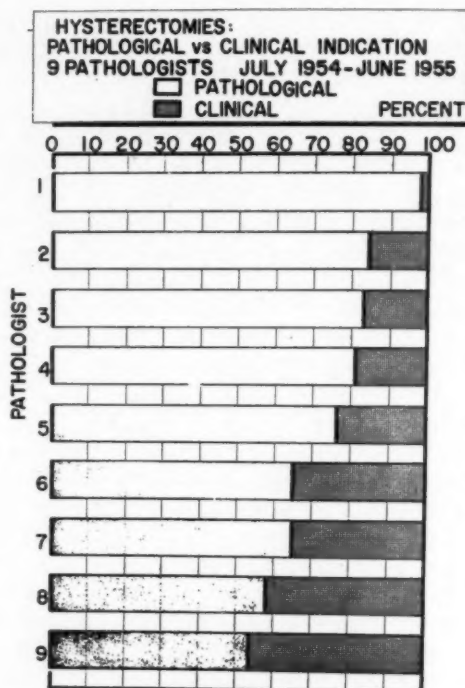
will use little blood in others.

The variation actually exhibited can be seen in Illustration 12 concerning the use of whole blood in patients who had gall bladder surgery. You will note that the range is from no patients receiving blood to 75 percent. Although this is a fairly small group of cases, I assure you that the same phenomenon has been observed in other conditions and in much larger series. The reason that we show this particular figure is that these gall bladder cases were "audited" by the medical staffs of the same hospitals in which the surgery was performed. This was a portion of the medical audit research program in which we are collaborating with the American College of Surgeons. In only three instances in the 233 cases was the use of blood criticized. Apparently each medical staff is firm in its beliefs as to when it is appropriate to use blood.

It would seem that here is an area in which investigation of the facts could help establish a reasonably rational basis for the use of blood, somewhere between the philosophy which holds that a blood transfusion is an extremely hazardous procedure to be used only as a last resort, and that which regards blood as the modern-day successor to sulphur and molasses.

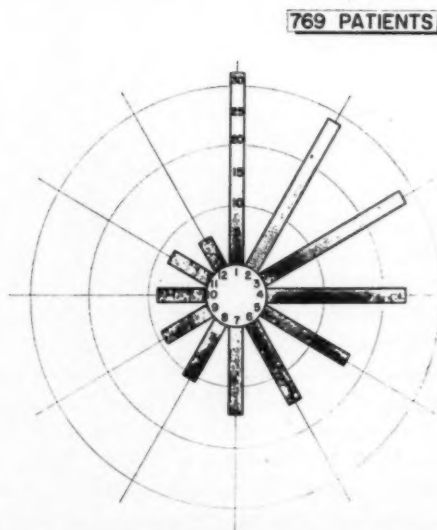
In addition to detecting differences in medical terminology, in record keeping, in hospital administrative practices, in methods of collection of data, and in medical practices there are other things which can be turned up by a statistical approach.

We recently reviewed the treatment of young children with respiratory infections. Among other things, we had committees of the medical staffs of the participating hospitals record the admitting temperatures of the infants. There were some 821 patients involved and in 67 instances no admitting temperature was recorded at all. The 754 instances in which there was a temperature recorded are plotted in Illustration 13. There are some interesting things about this chart. First, far more temperatures are recorded on full degrees than are recorded for tenths of a degree. Second, and more interesting, note that there is a far greater preference for even-numbered degrees than there is for odd-numbered degrees. We suspect that this is evidence that nurses and nurses' aides can't read thermometers. For the comment "who cares?" we believe that the principle of being faithful



8. Proportion of tissue reports recording pathological versus clinical indications for hysterectomy for 9 pathologists, July 1954 through June 1955 (1190 hysterectomies).

PERCENT OF PATIENTS WITH  
"COMPLICATED" APPENDICITIS  
FOR 12 PATHOLOGISTS



9. Per cent of primary appendectomy patients with a final diagnosis of "complicated" appendicitis (with peritonitis or perforation) for 12 pathologists, July 1954 through June 1955.



in a few things and also being faithful in many applies. We would like to have our help as meticulous in reading thermometers as in measuring doses of insulin.

As to the medical importance of a 2° vs a 3° fever, we agree that it isn't very important, once the fact has been established that a temperature elevation exists. The error probably doesn't influence treatment much in ranges above 100°. But if the question to be determined by taking the temperature is whether or not there is any elevation, so that we are reading in the range of approximately 98.6°, a mistake of one degree may influence our care of the patient considerably.

For the past two years one of the items which the record librarian has routinely reported to us on all patients is the admitting hemoglobin of each patient. Last fall we tallied up these admitting hemoglobins and found that the over-all hemoglobin average for all hospitals remained constant within 0.2 Gm, from month to month, for a six-month period. The most constant average maintained by any single hospital showed a 0.3 Gram range. At the other end of the scale was a hospital in which the range between highest and lowest month was 1.6 Gram in the six-months' period. These are shown in Illustration 14.

There also was an interesting difference in the over-all six-months' average hemoglobin from hospital to hospital as found in Illustration 15. As can be seen, these differences are not artifacts produced by small numbers. Some 23,000 determinations went into the total study.

In the cases of hospitals showing the wide swings of hemoglobin level we looked a little more closely at the data. In hospital 5, shown in Illustration 16, we were impressed by the jump in hemoglobin level which occurred in November. When we asked the pathologist about this he stated that this was the time at which they had recalibrated their colorimeter.

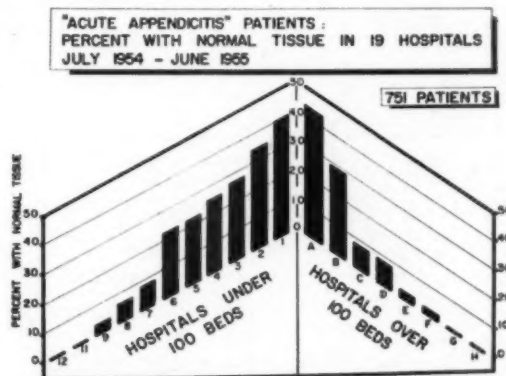
In Hospital 16, also shown in Illustration 16, the trend was in the other direction, a steadily decreasing hemoglobin level from the initial 14.2 Grams down to about 12.8. This was quite disturbing to the medical staff who had considerable faith in their laboratory, and so it was investigated rather carefully. Here it was found that the record librarian had neglected to supply to us all the data during the first

two months, and in addition she had through some unknown process selected primarily patients with high hemoglobin levels to report during the same period.

In both of these instances the changes in hemoglobin did not represent changes in the patient population of the hospital or their medical conditions, but rather problems in the laboratory and in the record room.

A common initial reaction to this sort of data on the part of the clinician is to shrug it off. He is used to seeing fluctuations of a Gram or more reported from day to day on individual patients, so when he sees that an average for one hospital is 2.0 Grams higher than an average for another hospital, he is not immediately impressed with any practical value of the information. Such information, however, is of real importance.

Robert G. Hoffmann, Ph.D., our statistician, while working on his doctorate on control chart



10. Per cent of primary appendectomy patients with a final diagnosis of acute appendicitis for whom a normal tissue was reported by hospital, for 19 general hospitals, July 1954 through June 1955.

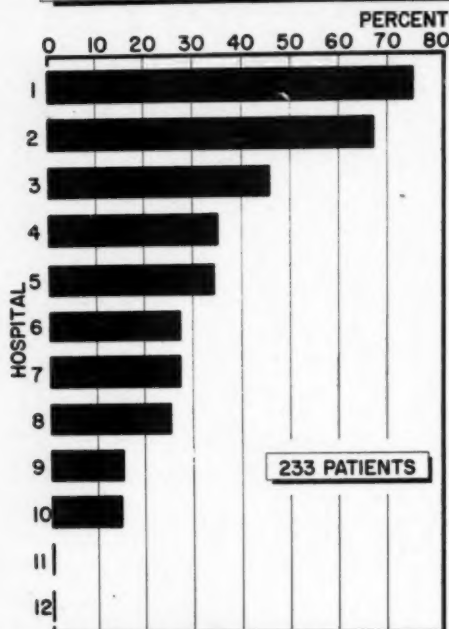
INJURY GROUP	NUMBER OF CASES	NUMBER WITHOUT X-RAY	PERCENT WITHOUT X-RAY
Fracture-Skull, Spine, Trunk N800 - N809	565	99	17.5%
Fracture-Upper Limb N810 - N819	622	71	11.4%
Fracture-Lower Limb N820 - N829	746	61	8.2%
Dislocations without fracture N830 - N839	116	15	12.9%
Sprains & Strains N840 - N849	283	63	22.2%
Head Injury-Except Fracture N850 - N856	467	99	21.1%
TOTAL	2,799	408	14.6%

\*International Statistical Classification Code

11. X-rays in selected trauma: Use of diagnostic x-rays in 2,799 hospitalized trauma patients in general hospitals, 1955.

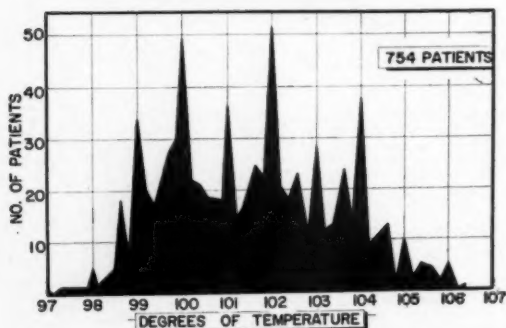
methods in clinical laboratories, studied two hospitals literally across the street from each other,

### PERCENT OF GALL-BLADDER PATIENTS TRANSFUSED—12 HOSPITALS



12. Per cent of gall bladder patients transfused, by hospital, for 12 general hospitals, 1954.

### RESPIRATORY DISEASES IN CHILDREN TEMPERATURES OF PATIENTS



13. Frequency distribution of admitting temperatures of 754 children hospitalized with acute respiratory infections as reported from 11 general hospitals, July through December 1954.

Hospital	Monthly averages of admission hemoglobins, in Grams			Tests per month
	Highest month	Lowest month	Range of monthly averages	
1	13.3	13.0	0.3	162
5	13.6	12.0	1.6	347

14. Highest and lowest monthly averages of admission hemoglobins for 2 general hospitals, July through December 1954.

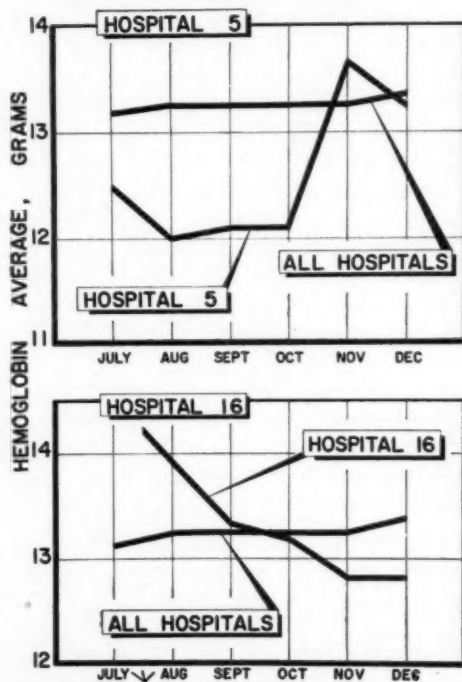
taking care of the same community's patients, and staffed by the same physicians. Illustration 17 presents the data from these two hospitals.

In Hospital A the initial hemoglobin average was 11.1 Grams, whereas, in Hospital B across

Hospital	Six-Months Average	Total Tests
9	11.6 Gm.	1056
14	14.1 Gm.	876

15. Six-months' averages of admission hemoglobin levels for hospitals showing highest and lowest overall averages for the period July through December 1954.

### AVERAGE ADMISSION HEMOGLOBIN LEVELS - 1954



16. Monthly averages of admission hemoglobins for 2 general hospitals as compared with monthly averages for all hospitals, July through December 1954.

HEMOGLOBIN AVERAGES FOR TWO HOSPITALS			AVERAGE PATIENTS TRANSFUSED PER DAY
	Hospital A	Hospital B	
Initial Period	11.1 Gm.	13.3 Gm.	5.2
After Restandardization	14.9 Gm.	12.8 Gm.	2.4
Reduction in Transfusions			2.8

$2.8 \times 365 = 1,022$  fewer patients per year transfused after restandardization.

17. Monthly averages of admission hemoglobins for 2 general hospitals before and after restandardization of the procedure, and average patients transfused per day for the same periods (no change in patient load in the hospital).

the street, at the same time the average was 13.3 Grams. When this fact came to light, an investigation was made and the instruments were re-standardized. In Hospital A, the post-standardization average was 14.9 Grams, whereas in Hospital B, it was 12.8 Grams. After the re-standardization the laboratory may not have given absolutely precise hemoglobin reports either, but the point of presenting this data is found in the final column. During the period before re-standardization of the equipment, in Hospital A an average of 5.2 patients per day received blood transfusions. After re-standardization an average of 2.4 patients per day received blood transfusions. Multiplied out, this means that in the course of a year, approximately 1,000 fewer patients received blood transfusions when the hemoglobin determination had been re-standardized to give every patient approximately 3.8 Grams more of hemoglobin.

Here, as in the illustration with the temperature readings, the importance of the error is not felt in the definitely abnormal range. The error is of serious import when it occurs at or near the critical point which the physician has selected as determining his course of action. In the temperature reading, the questions is "Has the patient a fever?" In the hemoglobin reading, the question may be "Does the patient need a transfusion?" Here, the error is one which automatically and secretly adds to or subtracts from the true hemoglobin level of every patient an error in the amount of the deviation from the standard.

In a chemical titration, one or two drops are not very important except at the end-point.

Some tangible changes seem to have occurred in the three-year period the program has been under way. There have been some improvements in nomenclature in the participating hospitals. In most instances medical records contain more information than they did three years ago. Records are being completed more rapidly because the staffs want to get information back. Some standardization of medical record room procedures and functions has resulted. Hospitals have had facts to use in planning their facilities. A number of medical staffs have used statistical studies incorporating their own data as the bases for medical staff discussion. Finally, it appears that there have been some changes in medical practice.

The fact that this program is aimed at providing help for physicians has secured for it the interest and support of the American College of Physicians, American College of Surgeons, and American Hospital Association which have joined with the original sponsor of the program, the Southwestern Michigan Hospital Council in forming a non-profit corporation of national scope to furnish medical and hospital statistical services, and also to continue research in methods and with the data. The program which started in 1953 with 15 hospitals discharging 50,000 patients per year now serves 32 hospitals discharging 225,000 patients per year.\* It should be self-supporting when it grows to approximately four times its present volume. For interim support, a fourth grant has been obtained from the W. K. Kellogg Foundation.

So far, the work has been at a rather elementary level, and a good deal of attention has naturally been devoted to procedure and detail. As these hurdles are passed we expect to increase the amount of medically useful information available. Data such as I have described today usually raise questions more frequently than they furnish answers, but the stage has been set for further investigations, and a mechanism for facilitating such studies has been set up in the data processing and statistical organization.

#### Conclusions:

1. Medical and hospital statistics can be useful.
2. A data processing and statistical center serving a number of hospitals is practical. Medical record room procedures and statistical data are standardized, permitting comparisons, which are in turn possible because the data is fed into a central point where it can be analyzed.
3. In addition, there is usually an actual reduction in the cost of operating the medical record room of the hospital over and above the amount the hospital must pay for the services.
4. Another avenue of research is becoming more widely practicable: that of statistical analysis of the wealth of clinical information in hospital charts. Facts, the laboratory approach, may further displace armchair speculation and impressions. (ED. NOTE: SEE PAGE 205.)

\*As of December 1956, the Professional Activity Study serves 50 hospitals in 13 states with 386,000 patients discharged per year.

## *Adrenocortical Failure Following Long-Term Steroid Therapy\**

Joseph N. Plumer, M.D.\*\* and Richard S. Armstrong, M.D.\*\*\*  
Tucson, Arizona

IN THE few years that the corticosteroids have been available to clinical medicine, many reports of the successes in various diseases have appeared. However, reports of failures with the use of these drugs are infrequent. Only lately have more voices been heard advising the medical profession that these medications are not miracle drugs, but are to be considered as possibly lethal drugs and certainly not innocuous in their side-reactions.(1)

Following are three cases which illustrate the point that these drugs may produce death because of iatrogenic adrenocortical failure.

CASE NO. 1 (R29 909): This case was reported by Preuss, Fraser, and Bigford in the Journal of American Medical Association of August 23, 1952.(2) He was a 34-year-old white male. Onset of rheumatoid arthritis was in 1943 with deformity of multiple joints. He was started on Cortisone in November, 1950, and maintained on 50-mg. dosage daily. The patient was readmitted to the hospital on June 12, 1951, for cup arthroplasty of the right hip. For reasons not shown on the chart, Cortisone was discontinued when patient was admitted to the Surgical Service. On June 14, 1951, a cup arthroplasty of the right hip was performed by the Orthopedic Consultant. The surgical procedure itself was done easily; however, when the second transfusion during the operation was started, the patient developed shaking chills and the transfusion was stopped. Blood pressure remained good and on return to his bed the blood pressure was 110/70 mms. of Hg. However, shortly thereafter the blood pressure began to drop. The skin was dry, warm, and somewhat cyanotic. Temperature rose to 102° F. axillary. Patient was given Epinephrin, adrenal cortical extract, plasma, and whole blood. Patient never regained consciousness and died one hour and twenty minutes after being returned from the operating room.

\*Presented at A.C.P. Arizona Regional Meeting, February 4, 1956.

\*\*Chief of medical Service, Veterans Administration Hospital, Tucson, Arizona.

\*\*\*Chief of Laboratory Service, Veterans Administration Hospital, Tucson, Arizona.

### PERTINENT AUTOPSY FINDINGS

1. Adrenal Glands: (Figure No. 1 — Gross Appearance 4X) Grossly cortex was less than 1 mm. thick. Microscopically there was marked atrophy of all layers of the cortex with markedly increased vacuolation of cortical cells. (Figure No. 2)

2. Pituitary Gland: Grossly and microscopically unremarkable.

3. Hemorrhage of recent origin grossly observed in lungs, peripancreatic tissues, subendocardium, and subarachnoid and white matter of brain.

4. Vascular System: Fibrinoid necrosis, small arteries and arterioles, seen microscopically.

5. Rheumatoid disease with generalized arthritis, mitral valvulitis

Cause of death was felt by the pathologist to be acute adrenal insufficiency. The surgeons attributed the death clinically to fat embolism.

CASE NO. 2 (R 30 242) was a 65-year-old white male. Onset of rheumatoid arthritis involving multiple joints was in September, 1950. In March and April, 1951, patient had several courses of Cortisone therapy with some relief of symptoms, but relapsed each time when the drug was stopped. On July 20, 1951, he was again started on Cortisone in dosages varying from 37.5 to 75 mg. daily. He was admitted to our hospital on August 7, 1951, and remained on this therapy. He also received occasional three-day courses of intravenous Corticotropin (ACTH) therapy. The last series of this given was from December 4 to 6, 1952, inclusive. He also received several blood transfusions and various antibiotics for an infection of the right shoulder. Two weeks prior to his death he developed a febrile episode which was felt to be due to a kidney infection. The response to Penicillin was good. However, the day before his death the fever again returned, the patient lapsed into coma, the fever rose to 108° F., and death followed on July 4, 1953.



## PERTINENT AUTOPSY FINDINGS

1. Adrenal Glands: Grossly these were diminished in size with very thin pale cortices, (Figure No. 3). Microscopically, there were tubule formation and atrophy of cortical cells. Fat stains revealed moderately good lipid content (Figure No. 4).

2. Pituitary Gland: No remarkable changes.

3. Lungs: Grossly a hemorrhagic moist cut surface was seen. Microscopically there were pulmonary edema and intra-alveolar hemorrhage.

4. Heart: Grossly there was marked myocardial hypertrophy of left ventricle and microscopically foci of myocardial scarring and coronary arteriosclerosis.

5. Kidneys: Gross and microscopic changes of arterial and arteriolonephrosclerosis were present.

6. Rheumatoid disease with generalized arthritis.

Pathologically there was insufficient evidence for a definitive cause of death or cause of the hyperthermia. Major pathologic diagnoses were hypertensive cardiovascular disease, pulmonary edema, and arterial and arteriolonephrosclerosis and partial atrophy of adrenal glands. Clinical diagnoses of lobar pneumonia, rheumatoid arthritis, arteriosclerotic cardiovascular-renal disease were made.

CASE NO. 3 (R 39 561) was a 40-year-old white male, who was readmitted to our hospital on October 4, 1955. Onset of rheumatoid arthritis of multiple joints was in 1943. Chronic pyelonephritis was found in 1953. He had been bedridden since 1948. Patient had been taking Cortisone since early 1950, being maintained on 50 mg. daily as prescribed by his physician. He had received Corticotropin also at intervals, but the last few injections of this during the summer of 1955 failed to give the patient the "lift" he had experienced in the past from Corticotropin. Butazolidin therapy also had been tried. Patient developed an acute laryngitis on August 27, 1955, which responded to Erythromycin therapy. On October 2, 1955, he again developed a sore throat and hoarseness, for which he received Erythromycin therapy. He was

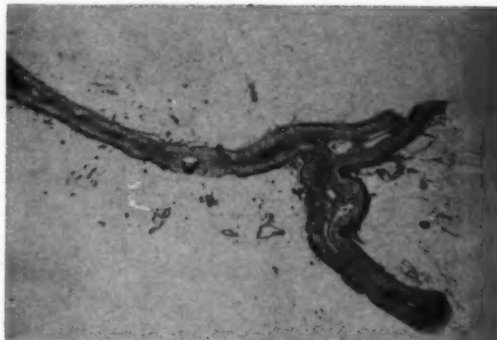


Figure 1 — (Gross Appearance 4.0x) Case 1.

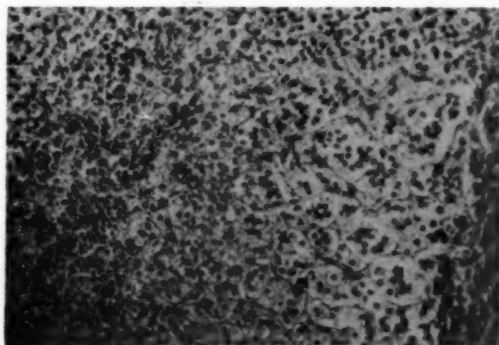


Figure 2 — Case 1 X200.



Figure 3 — Case 2.

admitted to the hospital on October 4, 1955, in coma and with a temperature of 104° F. Treatment with multiple antibiotics and oxygen failed, and patient expired on the morning of October 5, 1955.

#### PERTINENT AUTOPSY FINDINGS

General examination — "Moon" facies and peripheral edema.

1. Adrenal Glands: Grossly were approximately 1/5 normal size with a less than 1 mm. thick, pale yellow cortex (Figure No. 5). Microscopically cortices showed marked atrophy (Figure No. 6). Fat stains showed moderately good lipid content.

2. Pituitary Gland: Grossly unremarkable, but microscopically showed increased basophils with reticulization, degranulization, and hyalinization alterations of these cells.

3. Musculoskeletal: Osteoporosis of all bones, rheumatoid arthritis, grossly and microscopically.

4. Heart: Grossly and microscopically, changes, of slight myocardial hypertrophy, sclerosis and chronic carditis of aortic and mitral valves, and focal fibrosis of myocardium.

5. Respiratory Tract: Gross changes of hyperemia and exudation of trachea and bronchi, and patchy dry granular peribronchial consolidations in the lungs. Microscopically, the changes were of acute catarrhal inflammation in the trachea and bronchi and acute bronchopneumonia.

6. Kidneys: Grossly kidneys were small and scarred. Microscopically there was a marked chronic pyelonephritis.

7. Vascular: Microscopically there were changes of arteriosclerosis, fibrinoid changes with slight chronic inflammatory infiltrate in wall and perivascular tissues of small arteries and arterioles.

Major pathologic diagnoses were:

1. Rheumatoid disease with severe generalized arthritis, aortic and mitral carditis, and myocardial fibrosis.
2. Acute tracheobronchitis.
3. Focal acute bronchopneumonia.
4. Chronic pyelonephritis.
5. Adrenal atrophy.

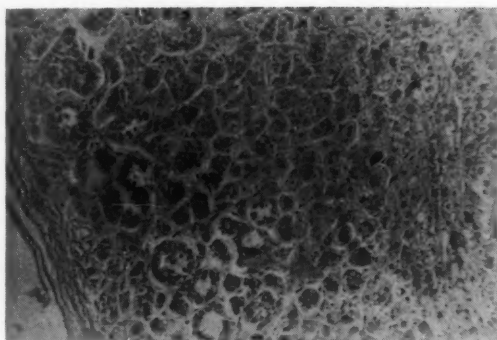


Figure 4 — Case 2 X200.

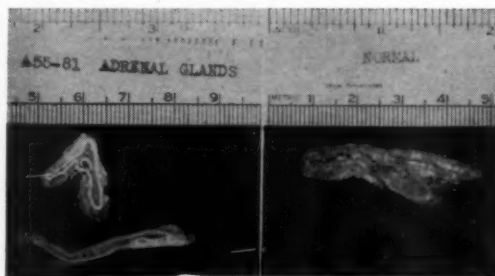


Figure 5 — Case 3.

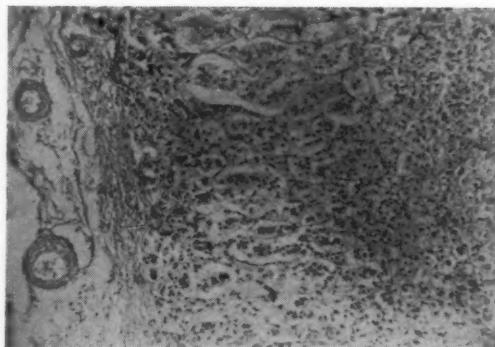


Figure 6 — Case 3 X200.

6. Anatomic changes consistent with adrenal corticoid therapy.

The clinical diagnosis of the cause of death was adrenocortical failure due to prolonged Cortisone therapy for rheumatoid arthritis. Contributory causes were acute tracheobronchitis, focal bronchopneumonia, chronic pyelonephritis, arteriosclerosis generalized, and arteriolonephrosclerosis.

### DISCUSSION

The first case shows that major surgery performed on a patient receiving Cortisone cannot be done safely without first priming the patient with Cortisone lest irreversible shock due to adrenocortical failure may result. This point, we believe, has been adequately pointed out since the early days of Cortisone therapy, and surgeons now take the necessary precautions. However, we feel it is urgent to point out that low adrenocortical function may be present many months following cessation of corticosteroid therapy. Patients giving a history of use of these drugs should have a Thorn test done preoperatively or, if in case of emergency surgery where time for the test is lacking, then priming with corticosteroid therapy should be done.

The second case presented the problem of the patient who had been on lengthy Cortisone therapy and developed an apparently mild infection. Coma and hyperthermia were terminal events. The physician is perplexed at the cause of death. Autopsy revealed that the adrenal cortices were atrophied. This fact was not appreciated at the time in 1953.

The third case is one in which, because of the patient's reluctance to discontinue Cortisone, he is allowed to remain on the medication. In spite of moon-facing, increasing osteoporosis,

and lack of response to Corticotropin, the Cortisone was still continued. A relatively mild infection again produced the picture of coma, hyperthermia, and death in 1955.

By reviewing the two latter cases, the similarity of type of death was revealed.

It is felt that probably intravenous Hydrocortisone therapy in similar cases in the future might be of value in preventing the imminent death from occurring. Following recovery of the patient, then steps to stimulate the adrenal cortex may be tried. This, of course, precludes the use of any further Cortisone-type therapy.

The problem presented is more than of academic interest to us in Arizona. Because of our climate, the patients who suffer from diseases for which the corticosteroids are used in treatment are in large numbers among our permanent and tourist population. A great many of them have had or are at present on this type of therapy. We believe the problem of adrenocortical failure is a more frequent one than is being reported or recognized.

### SUMMARY

1. Three cases of adrenocortical failure followed prolonged use of steroid therapy have been described.
2. In cases having had prolonged steroid therapy and developing hyperthermia, shock, and coma, adrenocortical failure should strongly be suspected and energetically treated.
3. It is felt that the problem is a more prevalent one than is being recognized.

### REFERENCES

1. Editorial: Cortisone, ACTH and Infection. *New England Journal of Medicine*, 254:41-42, 1956.
2. Fraser, C. G.; Preuss, F. S.; and Bigford, W. D.: Adrenal Atrophy and Irreversible Shock Associated with Cortisone Therapy. *Journal of American Medical Association*, 149:1542-1543, 1952.

### EDITOR'S NOTE

(See Page 201)

The facilities of the Commission on Professional and Hospital Activities, Inc. may be offered to additional hospitals. Hospitals may enter this service, acquiring it at any time. The only requirement is that they be listed by the American Hospital Association and present resolutions from their boards of trustees and medical staffs supporting participation in this program. Applications

should be sent directly to Dr. Vergil N. Slee, Director, Commission on Professional and Hospital Activities, Inc., First National Building, Ann Arbor, Michigan. A charge of twenty-five cents for each patient discharged is made to the participating hospital. This fee partially offsets the cost, the remainder being borne by a grant from the W. K. Kellogg Foundation. Most hospitals find that the handwork eliminated in the record room in preparation of monthly statistical reports and medical record room indexing more than offsets the twenty-five cent charge.

## *Chromatography in Clinical Medicine*

By Harold D. Palmer, M.D.

Springfield, Illinois

**C**HROMATOGRAPHY is a name given to a wide field of procedures which have two things in common, namely(1) inducing the migration of substances in liquids under specified conditions and(2) rendering of the migration visible by coloring or staining the substances which have migrated. When the migration occurs in an electric field it is called electrophoresis. Other methods depend upon the use of two solvents or of one solvent and one solid without electricity. All of these methods are included under the general name of chromatography. But the methods which use paper but do not use electricity have come to be known under the term "Paper chromatography" while "Paper or zone electrophoresis" is used to designate the chromatographic method in which the migration of the charged molecules takes place on filter paper in an electric field. Electrophoresis is used largely for protein analyses, paper chromatography largely for non-protein constituents.

Paper chromatography is now used in wide areas of application. In research it has become very useful and oft times a labor saving method. With it, the constituents of diseased tissues both in the living individual and in excised tissues can be studied more or less directly.(1) And, the constituents of chemical mixtures may be segregated into large classes, such as amino acids, nucleic acid derivatives and hormones. This is a tremendous short-cut over older methods. The method has been extended to include differentiation of metabolic patterns in body fluids and tissues. By using the method in conjunction with radio-active tagging the metabolic point of action of certain agents such as some of the anti-metabolite drugs has been made apparent. The globulin to which iodine becomes bound and the method of transport of other metals has been identified.

Chromatographic methods are not new, in fact, separation of toxin and antitoxin was carried out in a U-tube filled with agar gel 50 years ago but its use was not revived or developed until 1949 when interest in this whole group of physical-chemical methods was re-established.

In the practical field, paper chromatography of the non-electrophoresis type is now used in crime laboratories for the prompt and conclusive identification of drugs and chemicals, — an example is a recent paper titled "Descending Chromatographic Behavior and Differentiation of some Antihistaminics and Alkaloids."(2) These authors were able to demonstrate that morphine and other narcotics as well as the antihistaminic agents with which they are frequently combined when used by addicts can be accurately and quickly identified by a chromatographic method which they describe. Again, this method is a great time and labor saver.

In the clinical laboratory the procedure has been most commonly used in the separation and identification of urinary sugars. It is well known that there is no chemical method which separates certain sugars — because of interfering substances in urine — with complete assurance of definitive results. The chemical methods are also cumbersome and difficult. Paper chromatography, on the other hand, in the words of Doctor Fales, is an "exquisite" method for identification of sugars and yields "unequivocal results."(3)

In the clinical laboratory paper or zone electrophoresis has largely supplanted the use of the Tiselius apparatus. There are several compelling reasons for this among which are the simplicity of apparatus and the yield of a permanent record available for subsequent study. Starch and agar plates are also used as solid media in electrophoresis and these materials have some advantages for special procedures, but are not clinical laboratory methods of wide application.

### PRACTICAL USES OF PAPER ELECTROPHORESIS

Probably its most common use is its application in the partition of the serum proteins. The separation of the serum proteins into albumin, alpha<sub>1</sub>, alpha<sub>2</sub>, beta and gamma globulins is accomplished by the procedure and the result is a paper strip on which the fractions are separated and can be stained. The relative



amounts of the various proteins can be accurately calculated, after staining, by the use of a densitometer and integrator or by cutting the strips into segments containing the individual fractions, elutriating the dye and determining the concentration colorimetrically. Then, after performing a total protein on the serum by the biuret method one can calculate from the results obtained from analysis of the strip the percentage quantities of the various fractions contained in the total. Electrophoresis is a more accurate method of quantitation and determination of the A/G ratio than the usual salting methods used in the clinical chemical laboratory.

In the partition of serum proteins paper electrophoresis detects dysproteinemia (abnormal amounts of proteins normally present) and paraproteinemia (presence of an abnormal protein). Since its use has become more common, cases of paraproteinemia are being reported in increasing numbers.

The methods may be helpful in demonstrating hypogammaglobulinemia, in the study of certain renal diseases, certain hematologic disorders, xanthomatosis and in idiopathic dysproteinemia.

Agammaglobulinemia occurs in three groups of cases.<sup>(4)</sup> Group I is physiological hypogammaglobulinemia. It occurs at ages 4 to 12 weeks in all babies and is based on the fact that gamma globulin has a half life of about 20 days. By age 4 weeks catabolism has carried the concentration of gamma globulin given to the baby by the mother to a level below adult normals before synthesis of gamma globulin by the baby has caught up. At 12 weeks of age, synthesis is usually in advance of catabolism so that the level of gamma globulin begins to build up. Group II is made up of cases of congenital and adult agammaglobulinemia and in this group the low level is on the basis of failure of synthesis of gamma globulin which in turn is apparently on the basis of absence of the specific cellular elements responsible for the synthesis of gamma globulin, namely the plasma cells. The congenital form seems to be on a sex linked hereditary basis — boys are affected. The typical history begins at or after six months of age with pyoderma and respiratory tract infections and progresses with repeated infections throughout childhood; the of-

fending organism is often the pneumococcus. One reported case suffered from infection caused by 10 different types of pneumococcus at different times. 0.1 gm. of gamma globulin/kg of body weight given monthly will usually keep the gamma globulin above 150 mg.% and prevent infections. The adult cases occur in both males and females and whether or not they are congenital or acquired is yet to be determined. The third group consists of those cases which develop hypogammaglobulinemia on the basis of failure of synthesis caused by organic diseases. These usually do not reach the low levels of the agammaglobulinemia cases.

Nephrosis gives a very characteristic electrophoretic pattern of plasma proteins, the alpha and beta globulins are high, the albumin and gamma globulins low. The urine of nephrotics yields an electrophoretic curve which is almost like that of normal serum. After steroid therapy, the changes tend to reverse. It is interesting that both nephrotics and children with agammaglobulinemia are susceptible to pneumococcus infections — both have low gamma globulin. Idiopathic dysproteinemia has been observed by several workers in which there is temporary or transient hypoproteinemia without proteinuria.<sup>(5)</sup> Electrophoresis shows decreased albumin and gamma globulin with some elevation of the alpha globulins. These changes have spontaneously reverted to normal after 10 to 12 weeks.

In disseminated lupus erythematosus the specific protein (LE) has been located in the gamma globulins. Electrophoresis often yields a high gamma globulin level in this disease but this is no more than of supportive importance in diagnosis.

In the diagnosis of multiple myeloma the method has a definite place; in a high percentage of cases it yields a high peak which is located with the beta or gamma globulins. The paraproteinemia of this disease is often first suggested in the laboratory by the tendency of the blood to form rouleaux. Because of this fact, it is well to suspect that something is wrong with the plasma proteins whenever the rouleaux phenomenon is seen, and to carry out paper electrophoresis on the serum. This procedure gives definitive results.

Cases of acquired hemolytic anemia often give gamma globulin levels on the high side.

This type of change is non-specific and is of supportive significance only.

In the congenital forms of hemolytic anemia, however, the method has one of its greatest areas of usefulness. Here, hemoglobin, not serum electrophoresis is carried out. The following hemoglobins may be identified and, in conjunction with chemical tests, the relative proportions in any individual blood specimen determined: Adult (A), fetal (F), C, D, E, and S. This group of anemias, formerly thought of as diseases of the red corpuscle stroma, are now known, as a result of both chemical and electrophoretic methods of research, to be due to the presence of one or more of these abnormal hemoglobins in the red blood cell. The electrophoretic method has made the detection of abnormal hemoglobins relatively simple.

The method, with refinement, may become useful in certain types of hemorrhagic disorders. The hemophilic factor, PTC, PTA, the labile and stable factors, prothrombin and fibrinogen are all serum proteins. The method, now, is used largely in the research field so far as the hemorrhagic diseases are concerned. But, there is at least one hemorrhagic disorder in which the method is currently helpful. This disease is characterized by hemorrhagic diathesis, increased capillary fragility and specific paraproteinemia (hypergammaglobulinemia).<sup>(6)</sup> It should be kept in mind when observing patients with obscure vascular purpuras. The patients have a presenting complaint of purpura and electrophoresis reveals a hypergammaglobulinemia.

The lipoproteins are contained largely in the alpha and beta globulins; about 75% of the total lipid and 60% of the phospholipid is contained in the beta fraction. The beta fraction is elevated in the nephrotic syndrome, idiopathic lipemia, uncontrolled diabetes and in obstructive jaundice. The alpha globulins often vary inversely with albumin so that in acute febrile disease, cirrhosis, malnutrition and the nephrotic syndrome, while the albumin is low the alpha globulins are usually elevated. A technic employing paper electrophoresis to give an estimate of the total and phospholipid distribution has been described. In addition to the usual dyes for the protein fractions, sudan black B dye is employed in this method to stain the lipoproteins.<sup>(7)</sup>

Primary familial xanthomatosis has regularly given a marked increase in the beta globulin fraction as measured by paper electrophoresis.

Now something about reliability and reproducibility of results of paper electrophoresis. Its development and use is moving so fast that statements concerning its evaluation made in 1953 and 1954 are no longer valid. There is no reason to compare it with chemical fractionation. Each has its place. Chemical fractionation is complicated and difficult and can hardly be expected to become a procedure of routine availability. The term, chemical fractionation, sounds like something final and conclusive, but there are shortcomings even to these methods. Doctor Ben Fisher<sup>(8)</sup> of the Department of Hematologic Research of the Michael Reese Hospital writes in a comprehensive review of the subject, "— electrophoretic fractionation of proteins is accepted by many as the most exact method, and each newly devised chemical fractionation technic is compared with the electrophoretic value to establish the accuracy of the procedure,—." Hayles, Stickler and McKenzie<sup>(9)</sup> of the Mayo Clinic and Foundation write: "The authors use paper electrophoresis to analyze serum proteins. This is simple and requires small amounts of blood and equipment. It will demonstrate small amounts of gamma globulin where the Tiselius method does not." Doctors Walsh, Humoller and Dunn<sup>(10)</sup> of the Medical Research Laboratory and Radioisotope unit of the Veterans Administration Hospital of Omaha, after a comprehensive study in quantitative filter paper electrophoresis write: "Reproducible results can be obtained by filter paper electrophoresis under controlled conditions."

Fine et al. from Paris, France, state: "In control studies, with precise technic and adequate apparatus, experimental error was less than physiological variations."<sup>(11)</sup> On the other hand Gitlin of Harvard University, who prefers the use of chemical fractionation and immunochemical methods states, that, in his opinion, electrophoresis is not a suitable tool for the diagnosis of hypogammaglobulinemia.<sup>(12)</sup>

As with any new method, the full uses and limitations of paper electrophoresis will ultimately be defined by analysis of accumulated experience.

#### REFERENCES

1. Editorial, Paper Chromatography in the study of abnormal tissues, *Am. J. Clin. Path.* 25:1059, 1955.

2. Belles, Quentin C., and Sievert, Herman W., Descending Chromatographic Behavior and Differentiation of Some Antihistamines and Alkaloids, *J. Lab. and Clin. Med.* 46:628, 1955.
3. Fales, Frank W., Identification of Urinary Sugar, *Am. J. Clin. Path.* 25:336, 1955.
4. Gitlin, David, Editorial Comment, *Year Book of Pediatrics* 1955-1956, p. 49, Chicago, Ill., Year Book Publishers.
5. Homburger, F., and Peterman, M. L.: Studies on Hypoproteinemia. II Familial Idiopathic Dysproteinemia. *Blood*, 4:1085-1108, 1949.
6. McFarlane, A. S., Doney, A., Slack, H. G. B., and Papas-tamatis, S. C.: An Unusual Case of Hyperglobulinemia: *J. Path and Bact.* 64:335, 1952.
7. Chapin, M. A., The Distribution of Lipid and Phospholipid

in Paper Electrophoresis of Normal Serum Lipoproteins, *J. Lab. and Clin. Med.* 47:386, 1956.

8. Fisher, Ben, Recent Contributions of Electrophoresis to Clinical Pathology, *Am. J. Clin. Path.*, 23:3, 1953.

9. Hayles, Alvin B., Stickler, Gunner, B., and McKenzie, Bernard F., *Pediatrics* 14:449, 1954.

10. Walsh, John R., Humoller, Fred, L., and Dunn, Arthur L., Comparative Studies in Quantitative Filter Paper Electrophoresis, *J. Lab. and Clin. Med.* 46:772, 1955.

11. Fine, J. M., Vincan, Alvin, Eyquem, A., and Granlade, J., Electrophoretic Studies of Serum in Diseases of Blood and Hematopoietic Organs. *Presse Med.*, 62:1043, 1954.

12. Gitlin, David, Editorial Comment, *Year Book of Pediatrics* 1955-1956 p. 53, Chicago, Ill. Year Book Publishers.

# 1 IN 4 NOW 1 IN 3

Ten years ago, only one in four cancer patients was being saved. Steadily since then, heart-warming progress has been made. Today, with 450,000 new cancer cases estimated for 1957, you, their physician, can expect to save one in three of these patients.

Many factors contribute to this success — your leadership, a more aware public, improved methods and techniques of detection, diagnosis and treatment. There is every reason to expect this progress to continue to the point where half of those stricken by cancer will be saved. As yet, science does not have the know-how to save the other half.

That knowledge will be gained — and, indeed, the riddle of cancer itself, will one day be solved in the research laboratories. To continue to support this vital work, as well as to carry on its dynamic education and service programs, the American Cancer Society is seeking \$30,000,000. We are again appealing to the public to "fight cancer with a checkup and a check."

The check is insurance for tomorrow. The insurance for today is largely in your hands, doctor. Fighting cancer with a checkup is our *immediate* hope for saving lives.

**AMERICAN CANCER SOCIETY**



## *Leiomyoma of the Stomach*

By E. T. McCartney, M.C., M.B., F.R.C.S. and I. Stewart, M.D.  
From the Victoria Hospital, Keighley

**T**HIS CASE is of interest because of the confusing symptoms which resulted from the growth of two tumours, one a leiomyoma of the stomach, the other an adenocarcinoma of the colon.

### CASE HISTORY

A man of 70 years was admitted to the medical ward. He stated that five years previously he had copious haematemesis and was in bed three weeks. Since that time he frequently suffered from a burning epigastric pain which came on half an hour after meals and disappeared spontaneously, its disappearance being hastened by eructation. His appetite was good.

Five days before admission he had an excruciating low back pain accompanied by faintness and weakness. The pain continued in a mild form for three days, then recurred with sufficient violence to cause him to collapse. He passed a black stool during this period.

Physical examination showed some distension of the abdomen and enough muscle rigidity to prevent palpation. The prostate was moderately enlarged.

He remained in hospital a month, passed several black stools and complained on several occasions of pain below and to the left of the umbilicus. After discharge he had a Barium meal. The x-ray showed a six hour residue and distortion of the duodenal cap. He was referred to one of us (E.T. McC) for further investigation. His principal complaints at this time were constipation, a low left abdominal pain and borborygmi. A barium enema showed the presence of obstruction in the descending colon.

At operation an infiltrating and firmly adherent growth of the descending colon was found and a hemicolectomy carried out. In addition there was a globular tumour suspended from the greater curvature of the stomach about 8 cm. from the pylorus. The distal two thirds of the stomach was removed and anastomosis of the proximal portion made with the jejunum.

He made a fitful recovery after this very considerable procedure, first developing a cough with fever and later a partial collapse of the lung. Three months after discharge he was readmitted with constipation, abdominal pain and vomiting. An emergency operation showed that a loop of small gut had become involved with the large bowel anastomosis and formed a volvulus. This was released but he died the same evening.

### PATHOLOGY

The tumour of the stomach, roughly globular and measuring 8 cm. in its largest diameter and 6.5 cm. in its shortest, was clothed internally by intact mucosa and externally by intact serosa. The cut surface was white and glistening with the "watered silk" pattern of the common uterine fibroid. There were several streaky zones of haemorrhage.

Histological sections showed the tumour to consist of large spindle cells with no features to suggest malignancy. There was much oedema and haemorrhage. Professor R. A. Willis kindly examined the sections and expressed the opinion that the growth was a Leiomyoma.

Sections of the growth in the colon showed a papillary adenocarcinoma with no unusual features.

### DISCUSSION

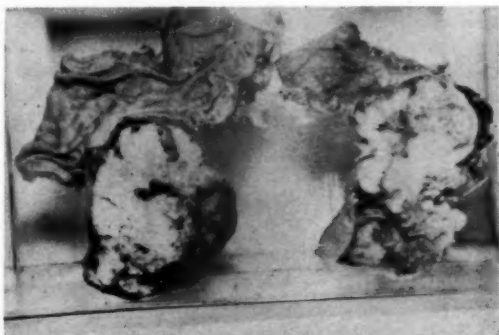
Once the presence of two tumours was known the clinical features could be clearly separated. The leiomyoma had almost certainly been responsible for the post prandial pain and the haematemesis, the adenocarcinoma for the low backache, left-sided abdominal pain and melena. It is of course possible that the leiomyoma contributed to the melena.

The size of the leiomyoma is unusual. Golden and Stout (1941) analysing the records of the Presbyterian Hospital, New York found that in a series of 5,869 autopsies, 20 of these tumours (0.34%) were discovered. All but three were less than 1 cm. in diameter and the largest was 3.25 cm. in diameter. In the same period of 26



years there were seven incidental findings at operation and of these the largest was 2 cm. in diameter.

These authors report three cases only of operation carried out for gastric leiomyoma. These were of equivalent size to the one now described. Case 6 was bilobed, the endogastric part being 4.5 x 3.5 x 2.5 cm., the exogastric 2.8 x 2 x 1.8 cm. Case 7, also bilobed, had an endogastric portion 6 cm. in diameter and an exogastric portion 11.5 x 7 cm. Case 8 was an endogastric mass 2.3 x 2 cm. Willis (1953) encountered one weighing 900 grams and Rajasingham and Cooray (1950) described one of 4080 grams. Both these were exogastric.



On the left the leiomyoma is seen depending from part of the excised portion of the stomach. On the right the obstructing adenocarcinoma of the colon.

The symptoms which result from these tumours depend mainly on the site. Protrusion within the stomach may lead to ulceration and haemorrhage as in Golden and Stout's cases 6 and 7. The haemorrhage may be rapidly fatal as in their case 8. Cramp-like epigastric pain was noted in cases 6 and 8 and it will be remembered that our patient had a burning epigastric pain after meals. The larger exogastric tumours, according to Willis, are likely to be symptomless and attention only drawn to the condition by the palpable mass. Mechanical obstruction has been noted by Willenbacher (1928) and a gastroduodenal intussusception was described by Barnett (1925).

#### SUMMARY

A case is described in which a leiomyoma of the stomach and adenocarcinoma of the colon were found in the same patient and gave rise to a confusing symptomatology.

We are indebted to Professor R. A. Willis for his examination of the histological material.

#### REFERENCES

- Barnett, L. E. (1925) *Brit. Jour. Surg.* 12, 615.  
 Golden, T. & Stout, A. P. (1941) *Surg. Gyn. Obst.* 73, 784.  
 Rajasingham, A. S. & Cooray, G. H. (1950) *Brit. Jour. Surg.* 38, 247.  
 Willenbacher, M. (1928) *Zentralbl. f. Chir.* 55, 1424.  
 Willis, R. A. (1953) *Pathology of Tumors*, 2nd Edn. Butterworth & Co., London.

CANCER STRIKES  
1 in 5

STRIKE  
BACK

GIVE

\$ \$

\$ \$

## THE *President's* PAGE

**T**HIS IS my final page as a message from your president. Hence, I shall indulge in the luxury of some vindictiveness in my observations of present legislative and socio-economic trends, and in presumption of offering some advice.

When are we going to learn to say "no"?

We permitted the Socialist planners to talk us into participating in the "Blue Skies," an unlamented scheme of the American Workers' Health and Medical Association during the depression years and the great exodus from the Dust Bowl. Were our motives for receiving payment from the government for our services to these unfortunates based on pure misty-eyed idealism and humanitarianism? Or were we impelled to submit because we liked the welcome sight of the Federal Treasurer's check in our mail?

Next, came home town care of the veterans. Again, stirring music was played to arouse our patriotic emotions when we were harangued with remainders of our duties to the veterans and the promise of reward in gold. We strained like Ulysses on hearing this song of the Sirens, but we lacked the foresight of tying ourselves to a restraining mast of dignity.

Now, we have Medicare. Again, we have been maneuvered into retreating another step before the onslaught of Socialism. This scheme has been cloaked with respectability, because our own Blue Shield has been designated as the fiscal agent: but the money still comes from the taxpayer's pocket. (What's wrong with me, — that I find taking taxpayers' money so distasteful?) But I am reminded of Goethe's Faust.

"Cursed Mammon be, when he with treasures  
To restless actions spurs our fate."

Now, we are faced with the prospect of selling our souls, — again through Blue Shield and Blue Cross, — and again for money, — by permitting the state and federal governments to purchase insurance coverage for certain classes of recipients of public assistance. Sure! I know that these people need and deserve good medical care. But can't we find a more dignified way to provide it without sacrifice of sound economics of Blue Shield which might expose our own plan (Blue Shield) to bankruptcy with possible eventual assumption of control by the federal government? We are "tut-tutted" by all kinds of empty assurances that such catastrophes may not happen; but I can see it only as a plot to destroy the protective (Blue Cross) Shield, and make our armor more vulnerable in our struggle against Socialism.

What will be next? The Siren's song and promise of gold for a Medicare plan for postal and other governmental employees; then possibly unions and farm groups. Then, who is left? Well, fellows, you might as well be paid for taking care of the few tax-paying suckers who are left out! That's what happens when we disregard our principles of democracy, based upon the concept of the freedom, dignity and personal responsibility of the individual citizen.

I recognize that social changes are inevitable. But, please, let us exercise prudent judgment, caution and dignity in our negotiations. Ernest E. Irons, M.D., in his special article on "Citizenship — A Physician's Obligation" (JAMA, July 14, 1951, Vol. 146, No. 11) presented in a scholarly manner, a warning against too readily submitting to social changes, and states, "— new theories of procedure are suggested, some of which are good; others are bad because the means employed for attempted correction may yield temporary benefits, but later create new distress. Alluring bait is offered in large print; heavy penalties are concealed in small type."

There may be some of you who are saying "Ah! Podolsky, face reality! Socialized medicine is inevitable. You may as well learn to like it, — and get paid for it!" But, I don't have to like it. I'd prefer to fight against it. And, besides — I like to squawk like hell.

A. I. Podolsky, M.D.

President

THE ARIZONA MEDICAL ASSOCIATION, INC.

# Editorial

## ARIZONA MEDICINE

Journal of

ARIZONA MEDICAL ASSOCIATION, INC.

VOL. 14

APRIL, 1957

NO. 4

Darwin W. Neubauer, M.D. .... Editor, Tucson  
Leslie B. Smith, M.D. .... Assistant Editor, Phoenix

### EDITORIAL BOARD

R. Lee Foster, M.D. .... Phoenix  
Louis G. Jekel, M.D. .... Phoenix  
Frank J. Milloy, M.D. .... Phoenix  
William H. Oatway, Jr., M.D. .... Tucson  
Clarence L. Robbins, M.D. .... Tucson  
Elmer E. Yoeman, M.D. .... Tucson

### ASSOCIATE EDITORS

C. Thomas Read, M.D. .... Chest Surgery  
Charles W. Elkins, M.D. .... Neurosurgery  
Paul L. Singer, M.D. .... Genito-Urinary  
Roger F. White, M.D. .... Pediatrics  
Frederick J. Lesemann, Jr., M.D. .... Gen. Surgery  
James D. Barger, M.D. .... Pathology  
Hermann S. Rhu, M.D. .... Ob-Gyn  
Donald N. McLeod, M.D. .... Gen. Practice  
Alvin L. Swenson, M.D. .... Orthopedics  
William B. McGrath, M.D. .... Neuropsychiatry

### REPORTERS

Wallace A. Reed, M.D. .... Central District  
Donald F. DeMarse, M.D. .... Northeastern District  
Melvin W. Phillips, M.D. .... Northwestern District  
Charles H. Karr, M.D. .... Southeastern District  
Paul J. Slosser, M.D. .... Southwestern District  
M. A. Carreras, M.D. .... Southern District  
Jesse D. Hamer, M.D. .... American Medical Assoc. and Legislation  
Walter T. Hileman, M.D. .... House of Delegates and Council Action  
Carlos C. Craig, M.D. .... Annual Meetings  
Oscar W. Thoeny, M.D. .... Medical Economics  
Norman A. Ross, M.D. .... Organizations "Civics"  
Mrs. Robert Cummings .... Women's Auxiliary  
Howell S. Randolph, M.D. .... Historical  
Nelson C. Bledsoe, M.D. .... Historical

### COMMITTEE ON PUBLISHING

Darwin W. Neubauer, M.D., Chairman .... Tucson  
R. Lee Foster, M.D. .... Phoenix  
Frederick W. Knight, M.D. .... Safford  
Donald E. Nelson, M.D. .... Safford  
Robert Carpenter Executive Secretary, Arizona Medical Assn, Inc.

### ADVERTISING AND SUBSCRIPTION OFFICES

J. N. McMEekin, Publisher and Business Manager,  
Mayer-Heard Building, Phoenix, Arizona  
Eastern Representative  
A. J. JACKSON, President  
State Journal Advertising Bureau  
510 N. Dearborn St., Chicago 10, Illinois

### CONTRIBUTORS

The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Articles for publication should have been read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.
7. Exclusive Publication—Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notified within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
8. Illustrations—Ordinarily publication of 2 or 3 illustrations accompanying an article will be paid for by Arizona Medicine. Any number beyond this will have to be paid for by the author.
9. Reprints—Reprints must be paid for by the author at established standard rates.

The Editor is always ready, willing, and happy to help in any way possible.

(The Opinions expressed in original contributions do not necessarily express the opinion of the Editorial Board.)

## THE NYLON NIGHTIE

THREE years ago in this Journal I wrote "If we do not trouble ourselves to do these things, we will continue to be damned." "These things" referred to our proper indoctrination of the Public with the true facts about the practice of Medicine, its cost, and ourselves. Our periodicals continue to publish articles which belittle the Medical Profession by exposing exceptional deficiencies and alluding to the "exorbitant costs of medical care." These authors seem to remain steadfast in their purpose. I ask you, what is their objective?

When these assaults first began to appear it was my opinion that the author's intentions were, at least in part altruistic, but as time has passed, and the tirades continue, I have been forced to change my opinion. Because of the similarity of the pattern of their destructive attacks I am convinced that these authors are beset with intent to change our social order.

One of the most dastardly articles to appear was that of Sidney Shalett and J. Robert Moskin, in the July 1956 issue of Woman's Home Companion, entitled, "The Doctor's Dilemma—why you can't afford to be sick." (See February 1956 editorial—case of the yellow journalist). These same authors in the next issue of the Woman's Home Companion gave birth to another monstrosity entitled "Can we have Better Medical Care?" Add to your library such articles as "The Doctor's Conspiracy of Silence," "How much Should Your Doctor Charge?", "Are Your Doctor Bills Padded?", "Patients for Sale," "Watch it, Doc," and "Why some Doctors Should be in Jail," along with others including the Ewing report to President Truman. A critical study of these will convince you that they have one consecrated purpose, namely to destroy the greatest system of health preservation ever known.

All of these articles dwell upon and emphasize such subjects as "higher costs of medical care, fee splitting surgeons, excessive charges, failure to provide equal care to all, ethical

failures, failure to police our own profession, failure to accept all group medical care plans, failure to accept Federal compulsory health insurance, our opposition to Federal support of the schools, our failure to provide enough Doctors, our failure to curtail all Ghost surgery, and our failure to accept inevitable social changes."

We as Doctors should be proud that we do not readily accept the radical changes referred to and thus discard a system of Medicine which is far superior to that found in any nation of the world irrespective of their form of Government. We realize that, although there is always room for improvement and that Utopia may be around the corner, we must be cautious unless we are guilty of omission of fostering a system of medicine which has already been proven many times in the past to be a comparative failure in its application.

Communism proposes, that all are equal in all things and that all share and share alike. This same theme is frequently proposed by the authors of the above mentioned articles. If our medical profession has failed to readily yield to such teachings then we should be proud that we "stubbornly" but fortunately not "blindly resist changing concepts of medical care" as Shalett and Moskin have phrased it.

Why do these writers continue to preach that "hostility of the people toward the medical profession continues to grow and grow?" Why are we continually harassed by some of the press as sinners, money grabbers, cold blooded, unsympathetic, negative do-nothings, as against constructive changes, as disliked rather than loved, destructive, rather than constructive, harsh rather than mild, that we are criminals, stupid, greedy, and that we wantonly ravish the public? The answer to the above questions becomes an ignominy when it is known, that repeated polls have shown that each individual's personal physicians are free of these charges and that they do not believe that their medical costs are too high. In other words the public as a whole is not dissatisfied with their own doctors. The polls show further that they do believe that all doctors, other than their own, are guilty as charged. The only answer to this paradox is that from their own knowledge and personal experiences they are satisfied with their physicians who serve them and that their

opinions regarding other doctors is based wholly upon what they read in the press. This paradox then becomes a spring board for the reader of these articles to dive into the pools of Doctor-Hate-Fomenting.

Since dollars can be mathematically tabulated, and because most everyone is dollar conscious, let us consider the indictments as they are related to medical costs. The authors have been convincing in their attempt to create the illusion, that rather suddenly we have been confronted with something new in medical costs. They further imply that medical costs are out of proportion to anything else and are not in keeping with the general rising costs of living. Not a single one of these authors has been honest in their presentations relative to the costs of medical care. This illusion is being created by the following quotations "disastrous surprise medical bills—," "The cost of medical care has crept up to such dizzying heights that most Americans cannot afford to be sick under the established fee-for-service system of paying their doctor by the visit or for work done." Marion B. Folsom, Secretary of Health Education and Welfare "—we must help ease the mounting burden of the costs of medical care." "—costs of drugs . . . nursing and hospital care have risen astronomically too," "Most Americans are unhappy today about the increasingly difficult struggle to pay the cost of good health," "fee-for-fee service system is proving less and less adequate as medical practice becomes more specialized and medical costs leap upward."

Re-read these quotations and you will be cognizant, if not so already, of the "crept up" "heights," "mounting," "risen," "increasingly" and "leap" — as if present costs were new. The answer is that medical care costs less today than it has ever cost and this is in spite of an increase in hospital costs per day.

The only fair "normal" period upon which to base comparative costs is that of the 1935-39 period as compiled by the Bureau of Labor Statistics, rather than the more recent conversion to a period of 1947-49. So let us consider the facts regarding medical costs as related to the cost of living.

Since 1935-39 (equals 100) period, the cost of medical care has only risen approximately 180 whereas the total cost of living has climbed



to 192 — thus medicine is about 8 points less than the over all cost of living. If 1947-49 is considered 100 then medical costs have risen more rapidly than the general cost of living during the last 10 years, being 125 to 115 points. This puts medical cost in an unfair position because during the 1935-39 to 1947-49 period medical cost lagged far behind the general increase in the cost of living. Since 1949 the over all cost of medical care has not caught up with other costs. The over all cost of medical care, including doctors fees, dentist fees, prescriptions, aspirin and milk of magnesia, vitamins, etc., are still relatively below the general cost of living as determined by the Bureau of Labor Statistics. Knowledge of facts make detestable lies of the statements that the cost of medical care is new or increasing out of proportion to other costs.

The writers emphasize that it is continuously more difficult for workers to meet their medical costs. Is this true? — the answer is NO. It now only takes 54% of one's wages to purchase the same amount of medical care which he could purchase in 1930-39. On the same basis the worker only works 60% as much to purchase the same amount of all good and services. Thus the weekly wage will purchase 40% more in spite of the fall in the purchasing price of the dollar. The following is a quotation from a Washington release of January 26, 1957, "A total increase in consumer's price during 1956 was nearly 3%. The average earnings of factory workers set a new high record in December, so that the buying power . . . went up despite the price rise."

The culprits leave a lasting impression that Doctors are ones profiting by these so called increases in medical care (a lie) but they through ignorance or malice intent fail to mention that the Doctors' share of the medical cost dollar has dropped from 33 to 28 cents, and that their fees have gone up less than other costs. A chapter could be written on why hospital and drug costs have had to increase, in order to decrease hospital stay from three weeks to five days and to save more lives. The National expenditure for medical and hospital care has remained between 4 and 5% of the national income for 30 years. Actually much of the medical costs now is due to a large increase in the birth rate, which as

Frank G. Dickinson states, "is certainly not a disease."

Why do they state that people can no longer afford medical care when actually they are making more purchasing wages than ever before? Consider that since 1935-39 (average) to 1953 the expenditure for tobacco has increased from \$1,621 millions to \$5,310 millions (313 times), jewelry from \$402 to \$1,560 millions (5 times), personal care \$916 to \$2,641 millions (2.7 times) and user operated transportation (cars, etc.) \$4,808 to \$23,461 (4.8 times), whereas all medical costs have increased from \$3,928 to \$16,194 million (4 times). From these scattered representative examples it is readily determined that if people cannot now afford medical care that by the same token they also cannot afford the other necessities of life. Have there been any proposals to assure all peoples equally with the best food and housing available? The answer is NO, yet these two items are more essential to good health than is medical care.

If these recent authors on medical problems are as wrong in their versions of malpractice, fee splitting, ghost surgery, medical ethics, and doctor's morals as they are about medical economics, then it might be said their writings all can be discarded. But such is not true because millions of people have already been influenced by their repeated innuendoes.

Our present day hate fermenting apostles of agitation are by their avoidance of the whole truth using the Hitler form for spreading propaganda, as described by him when he stated, "The function of propaganda is, for example, not to weigh and ponder the rights of different people, but exclusively to emphasize the one right which it has set out to argue for, its task is not to make an objective study of the truth insofar as it favors an enemy."

Let us remember that there is no person, society, group or order organized or not organized that cannot be destroyed by the repeated impregnating of the minds of the public with selective, negative, exposures. That these authors under discussion are fostering a revolution is clear from their statement "and even more radical changes seem inevitable. . . . This drastic possibility is a National Health Insurance program, made compulsory by Federal law."

The shroud which conceals the design of

a major  
advance  
in sulfa  
therapy

**KYNEX\***...

Sulfamethoxypyridazine Lederle

**KYNEX** is an entirely new, readily soluble, single sulfonamide exhibiting excellent antibacterial action at radically reduced dosage.

**KYNEX** offers desirable clinical advantages hitherto not obtained by any related drug—

**LOW DOSAGE:** a total maintenance dose of only 2 tablets daily.

**HIGH SOLUBILITY:** prompt absorption, adequate diffusion into body fluid and tissue.

**PROLONGED ACTION:** therapeutic blood levels within the hour, blood concentration peaks within 2 hours—5-10 mg. per cent blood levels persist 24 hours after single oral dose of 1 Gm.

# cuts dosage 75%

**BROAD-RANGE EFFECTIVENESS:** KYNEX is particularly efficient in urinary tract infections due to sulfonamide-sensitive organisms, including *E. coli*, *Aerobacter aerogenes*, paracolon bacilli, streptococci, staphylococci, Gram-negative rods, diphtheroids and Gram-positive cocci.

**SAFETY:** KYNEX offers a margin of clinical safety based on low required dosage, solubility, slow excretion rate. Although KYNEX Sulfamethoxypyridazine is a sulfonamide derivative and the usual precautions regarding such drugs should be observed, the low daily dose of 1.0 Gm. is all that is required for the therapeutic blood levels. No increase in dosage is recommended.

**CONVENIENCE:** The low dose of 1 Gm. (2 tablets) per day offers optimal convenience and acceptance to patients.

**EACH TABLET CONTAINS:** sulfamethoxypyridazine . . 0.5 Gm. (7½ grains). **AVAILABLE:** Bottles of 24 and 100 Tablets.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK  
\*Reg. U.S. Pat. Off.



such writers as Shalett and Moskin, by analysis becomes as transparent as a Bride's Nylon Nightie and through it one sees not the chaste Venus depicted by them, but her sanguineous torso carnaged by the duplicity of beguiling social molesters — State Medicine.

### COMPLAINTS TO THE EDITOR

**P**ERIODICALLY verbal complaints are registered with the Editor as to the opinions expressed in this Journal, either as to editorial comment or frequently as to the articles published. The prime criticism registered is not that the articles or comments should not be published but rather that the opinion expressed by the writer is vigorously denied by the complainant. This is thoroughly understandable although at times the Editor does not appreciate the incensed tones being directed at him. As in the past, I would like to encourage those who differ with the opinions published in this Journal to write Letters to the Editor denouncing or denying the material as published. It obviously will obtain a much larger audience, will do much more to present the other side of the argument than directing the comments solely at the Editor. The policy to present all sides of a debatable issue, if presented to the Editor, has been stated and letters will be published if submitted.

### ARIZONA MEDICAL JOURNAL WINS AWARD

**T**HE JUDGES Committee, composed of members and officers of the Western Society of Business Publications, Los Angeles, gave the second place award for general excellence to the ARIZONA MEDICAL JOURNAL. This class included eleven publications in the 1956 Contest sponsored by the Arizona Newspaper Association.

### LETTERS TO THE EDITOR

February 12, 1957

Dear Editor —

**O**NE WONDERS about the tranquilizing drugs, of course, and the unusual whole-hearted acceptance of them for widespread use.

Are they to be like tobacco?

Equanimity itself is very questionably war-

ranted or desirable in human circumstances. One who finds it by artificial means, whatever their pharmacologic innocuousness, predictably loses tolerance for tension and neglects to some extent his own resources for solving or releasing tension.

The philosopher does not want docility or resignation or escape in man, nor dulling of man's spirit.

Secondly, the possible side-effects of any new drug are studied carefully. But, in the case of the tranquilizing agents, I doubt that the neurologic complications (clinical and sub-clinical Parkinsonism) are really side-effects; rather, they may prove to be direct effects of the drugs, present to some extent in every individual who takes them. Is there any more relentlessly tragic condition than Parkinsonism? It disturbs the neuropsychiatrist to notice a relatively infrequent blinking in referred patients who have been taking these drugs.

Next comes the slight monotonizing of the voice; then the little diminution of associated movements.

The catholicon or panacea perhaps had better be sought in religion and in philosophy and the social sciences than in the test tubes of our commercial alchemists.

Very truly yours,  
William B. McGrath, M.D.

Editor, Arizona Medicine:

**T**HE UNDERSIGNED, who are the members of the Industrial Relations Committee of the Arizona Medical Association, Inc., wish to protest the editorial, entitled "An Internist Looks At The State Industrial Commission" and signed by E.E.Y., which appeared in the January, 1957 number of Arizona Medicine. We trust that the journal will assign this point by point reply a position of equal prominence.

The article in question contains serious misconceptions that should be publicly corrected. First of all, the acceptance of certain medical condition as Industrial Commission liabilities is not a judgment made by personnel of the Industrial Commission. Rather such determinations are arrived at through opinions of the Courts in disputed cases, often issuing from the Arizona Supreme Court. Plainly, neither the Industrial Commission nor the physicians



of the State can challenge these legal decisions.

It is recognized that fees for the care of Industrial Commission clients often do not approach those charged for similar services rendered private patients. However, the Fee Schedule was established by the panel of a previous Industrial Relations Committee, after thorough consultation with physicians throughout the State. The fees presently paid, therefore, were set by physicians and were not dictated by the Industrial Commission. Furthermore, the Industrial Relations Committee, since September of 1956, under directive of the Council of the Arizona Medical Association, Inc., has been negotiating with the Commissioners for a new Fee Schedule and more realistic charges for procedures and services in all the specialties, including internal medicine. In attempting to arrive at fair figures, the Industrial Relations Committee has communicated with all the specialty societies in the State and the Arizona Academy of General Practice to request specific recommendations. It is hoped that we will be able to adopt the Relative Value Schedule of the California Medical Association to our uses and apply such conversion factors as are agreed upon by the various specialties. In this way fees in the future could easily be again liberalized, when warranted, by a simple revision of the conversion factor. We have already had replies from a majority of the specialty groups, including the Arizona Society of Internists, approving this plan and advising us of acceptable conversion percentages, most of them identical.

The statement that the "very low fee rate" cannot be justified because the Industrial Commission is an insurance carrier and can therefore at will adjust its Fee Schedule is an obvious oversimplification. The Commissioners of the Industrial Commission of Arizona have a duty not only to the physicians of the State but also to the clients for whose care they are financially responsible and to the business concerns whose employees by law fall under the procedural jurisdiction of the Industrial Commission of Arizona for medical management. Clearly, the Commissioners cannot raise the medical charges without careful calculation lest the change entail an increase in the premium level. Against such an increase the insured companies would have legal and legislative recourse that could delay advancement of fees for years.

We are struck most of all by the simple fact that the entire editorial was unnecessary. The questions raised by the writer could have been answered quickly if he had taken the trouble to contact any member of the Industrial Relations Committee. One wonders if perhaps he does not know that the State Association has since the adoption of its Constitution provided a standing committee for the discussion and adjudication of complaints about all aspects of industrial practice. Other physicians in the State are aware of the existence of the Industrial Relations Committee and seek its good offices often. The Industrial Relations Committee also is surprised that this editorial appeared without comment from the Editor-in-Chief. As a member of the Council of the Arizona Medical Association, Inc., the Editor-in-Chief presumably has known of the study being made by the Industrial Relations Committee on a new Fee Schedule since the formal motion of Council to that effect at its September, 1956 meeting. It would seem that at least a footnote to the article of E.E.Y. might have transmitted this information to its readers.

The undersigned believe strongly that the editorial pages of Arizona Medicine should not be a source of inflammatory and easily correctable misinformation but rather a source of authoritative opinion for the members of our Association. Legitimate controversy is one thing; indignant polemic untempered by elementary knowledge of the subject is quite another. We hope that setting the record straight in this fashion will serve to give a more accurate picture of the current status of the Industrial Commission Medical Fee Schedule.

The Industrial Relations Committee  
Arizona Medical Association, Inc.  
Lindsay E. Beaton, M.D., Chairman  
Francis M. Findlay, M.D.  
Robert E. Hastings, M.D.  
Joseph Saba, M.D.  
Leo L. Tuveson, M.D.

E. E. Y. was well aware of the existence of the Industrial Relations Committee. The Editor-in-Chief also knew of the study being carried out at Council direction over the voiced objections of the Chairman of the Industrial Relations Committee. The complaint of the G. P. and Internist seemed justified.

Editor

## *The History of Medicine in Arizona*

**COL. JOSEPH B. GIRARD**

The Arizona Daily Star, Wednesday Morning,  
September 4, 1918, page 2

**COL. JOSEPH B. GIRARD,  
U.S.A., RETIRED, DIES  
at SAN ANTONIO, TEXAS**

Was Son-in-law of Late Col. Wm. Oury  
of Tucson; Once at Fort Lowell.

Mrs. B. Cronley, of 1016 South Sixth avenue, has received news of the death, August 25, at his home in San Antonio, Texas, of Col. Joseph B. Girard, U.S.A., retired. Col. Girard, who is well remembered among the old residents of the city, was a pioneer Tucsonan, having been stationed at Fort Lowell, as post surgeon in the early seventies. He married a daughter of Col. William Oury, renowned Indian fighter and early-day capitalist.

Col. Girard, who was a man of great scientific attainments, has a long and distinguished career in the army, being retired a few years since, for age. During his active service he was stationed at most of the large posts in this country as well as in Cuba, Hawaii and the Philippines. He was for many years a partner of the late Andrew Cronley in cattle and ranches on the San Pedro river, and, at the time of his death, a large property owner in Tucson, several blocks of valuable real estate in the south end of the city standing in his name.

Three daughters survive Col. Girard: Mrs. F. Klamp, of Los Angeles; Mrs. John E. Hemphill, wife of Major Hemphill, U. S. Cavalry, who is now serving in France; and Miss Laura Girard, of San Antonio.

Interment will take place in the post cemetery at Jefferson Barracks, St. Louis, where Mrs. Girard, who died several years ago, is buried.

---

NOTE — CORRECTION FEBRUARY ISSUE. THE HISTORICAL ARTICLE WRITTEN BY DR. HOWELL RANDOLPH WAS INCORRECTLY ATTRIBUTED TO DR. N. R. BLEDSOE. APOLOGIES ARE OFFERED BY THE EDITOR.

---



Dr. Joseph B. Girard (Col. in U.S.A.)

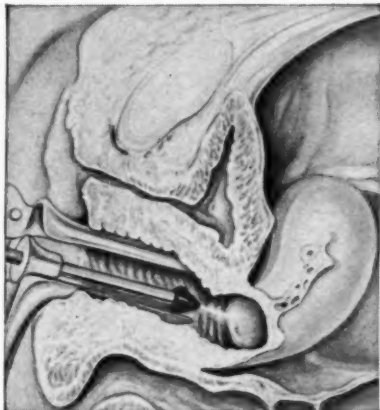
### **NEWS ITEM**

A new medical film — "The Metabolic Insufficiency Syndrome: Diagnosis and Treatment" — is now available from the Medical Film Center of Smith, Kline & French Laboratories. Particularly oriented towards the physician in general practice, it also is suitable for medical teaching.

A 16 mm. sound motion picture in full color, the 25-minute film reviews the processes of metabolism and describes the etiology and diagnosis of hypometabolism, whether due to subnormal activity of the thyroid gland itself (hypothyroidism) or faulty cellular utilization of the thyroid hormone (metabolic insufficiency).

Prints of this film, as well as other medical motion pictures, are available on free loan to physicians and medical groups through SKF professional Service Representatives, or by writing: Medical Film Center, Smith, Kline & French Laboratories, Philadelphia 1, Pa. Four weeks' notice and an alternate showing date should be given whenever possible.

## COMPREHENSIVE VAGINITIS REGIMEN



Powder Insufflation



Tablet Insertion

## Floraquin® Rebuilds the Defense Mechanism in Vaginitis

*Combined office and home treatment with Floraquin provides a comprehensive regimen which encourages restoration of the normal "acid barrier" to pathogenic infection.*

Vaginal secretions normally show a high degree of protective acidity (pH 3.8 to 4.4). When this "acid barrier" is disturbed, growth of benign Döderlein bacilli is inhibited and that of pathogens encouraged. Floraquin not only provides an effective protozoacide and fungicide (Diodoquin®) destructive to pathogenic trichomonads and yeast, but also furnishes sugar and boric acid for reestablishment of the normal vaginal acidity and regrowth of the normal protective flora.

### *Suggested Office Floraquin Insufflation*

"... the vagina is treated daily by swabbing with green soap and water, drying and insufflation of Floraquin powder."\*

### *Suggested Home Floraquin Treatment*

"The patient is also issued a prescription for Floraquin vaginal suppositories which she is instructed to insert high into the vagina each evening. On the morning following each application of these suppositories, the patient should take a vinegar water douche. . . ."

A Floraquin applicator is supplied with each box of 50 Floraquin tablets. G.D. Searle & Co., Chicago 80, Illinois, Research in the Service of Medicine.

\*Williamson, P.: Trichomonad Infestation, M. Times 84:929 (Sept.) 1956.

**SEARLE**

# TOPICS OF *Current Medical* INTEREST

## RX., DX., AND DRS.

By Guillermo Osler, M.D.

**'M.D.'**, the brand new medical journal, has just been sent out gratis to 150,000 M.D.'s. We mentioned the mag. last year when it was in mock-up form, and then had to pretend we hadn't said anything about it because the M.D. Company insisted on its semi-secret status. . . . 'M.D.' is the journal which walks like TIME Magazine. It is a good job, and will be sensational, tho it could be better. In this case, 'the shorter the better'. There just isn't enough medical news to fill such a journal to full size, and padding it too much with medical history makes for slow reading. . . . We suspect that people who are smart enough to put out Number I, Volume I will be smart enough to revise it. . . . The advertising is lush and top notch. The illustrations are O.K. The editorial board contains quite a few familiar names, and the chief (F. MARTI-IBANEZ, M.D.) and his assistant (MICHAEL FRY, D.Sc.) will probably become better known as the journal flourishes. The method of subscription hasn't been announced.

Sometime between the day this is written and the day it is published (2 months) chest surgeon Dr. John Steele will give a brief report and analysis in St. Louis of current trends in the SURGERY OF TUBERCULOSIS. Dr. Steele, formerly of Milwaukee and now of San Fernando V. A. Hospital near Los Angeles, has obtained data from the thoracic surgeons of 41 V.A. hospitals. It makes up-to-date reading, and quite exciting if you like that sort of thing. . . . About half of the hospitals use thoracoplasty fairly often prior to resection. About 70% use thoracoplasty when needed concomitant with resection. Twenty-seven hospitals use thoracoplasty after resection, but half of them only for complications. Six of them make routine collapses after pneumonectomy. Only 15 hospitals use other space-filling procedures (plombage, phrenic crush, pneumoperitoneum, etc.) before, during or after resection, with a few hospitals favoring the various methods at various times. . . . Most hospitals add extra drugs to 'cover' surgery in 'resistant' cases, but there is a tendency to use new drugs for other reasons (cavity, positive sputum, etc.) . . . Most hospitals have no prejudice against segmental or smaller resections, but a goodly number prefer lobectomy in 'resistant' cases. . . . There are quite a few reasons given for resecting 'closed' lesions, including youth, 'filled' cavities, and size of lesion. . . . Almost as many places do extrapariosteal plombage as do thoracoplasty when resection is not feasible.

The phthisiotherapists in Denver have several red-hot and RADICAL ATTITUDES about TREATMENT OF TB. They believe, for instance, that most patients should be up and around, and even 'about', while receiving chemotherapy. (We have felt for 4 years that being out of bed and slightly ambulatory is both safe and helpful, but we think that going much farther, with a potentially infectious patient, is dangerous to the patient and contacts). . . . Their most radical idea is that THE DOSE OF INH (Isoniazid) should be 20 mg. per kilogram per day. This pushes the dose of the drug to 1,600 mg. for a person weighing 175 pounds, quite a lot higher than the current 300 mg. level. The Denver guys (Mitchell, Filley, Middlebrook, Dresser, et al.) say that the high intake keeps the blood level high, keeps the effective non-acetylated level high, and works better with PAS when high. The elevated intake also causes an increased tendency to neuritis (10 to 30 per cent?), but it can be completely prevented by 100 mg. per day of pyridoxine (Vit. B6, now available wholesale at 1.8 cents per 25 mg. tablet). It can NOT be easily treated, however, once it has occurred, so beware, beware.

Here's A PEPTIC ULCER TREATMENT which has almost everything, — it is of foreign (glamorous) origin, it requires a prescription, it allows patients to eat what they want, and its advertising is loaded with double-talk. . . . The trade-name is 'Exul', and it contains a substance called 'Nupra'!

We do not usually see the 'SECRETARY'S LETTER' from the A.M.A. It is written by George Lull, M.D., Secretary-General Manager. . . . It is a newsy publication of a few pages. 'Letter No. 386' contained a story of the tribulations of a Hungarian doctor's family; the change in an A.M.A. award; the election of a negro M.D. to presidency of a Tennessee county medical society; and news items from Chicago and the A.M.A., including a note that the Council on Pharmacy and Chemistry has now simply become the 'Council on Drugs'.

TUCSON HOSPITAL NEWS is dynamic and promising. A Joint Hospital Drive for funds is scheduled to begin, and to continue for three years. They hope to raise \$1.5 million which will be matched by Hill-Burton funds. . . . Half of this money will go to the Tucson Medical Center for 100 beds, to be added to the 222 current capacity. There is a critical need for beds, with a five-fold increase in admissions in 10 years and





## HOSPITAL BENEFIT ASSURANCE

HOME OFFICE: FIRST STREET AT WILLETTA • PHOENIX, ARIZONA • ALpine 6-4888

BRANCH OFFICE: 507 VALLEY NATIONAL BUILDING TUCSON, ARIZONA • 3-9421

MEDICAL DIRECTOR  
DUKE R. GASKINS, M. D.

Dear Doctor:

I am looking forward to the State Medical Convention to be held at the Stardust Hotel in Yuma, April 10-13.

To be on hand for the meetings, I have taken a room at the Stardust Hotel. If you have an opportunity, drop by for a chat.

If you have any suggestions or questions about HBA and their services, I will be very pleased to talk with you at that time.

Very truly yours,

HOSPITAL BENEFIT ASSURANCE

Duke R. Gaskins, M.D.  
Medical Director

DRG:sk

a census of 94% in recent months. . . . The other half of the funds will go to St. Mary's Hospital which will build a branch hospital of 150 beds on the east side of the city. (TMC is on the east side, and St. Mary's is now on the west).

It is now time for everyone to take whacks at those 'harmless' TRANQUILIZERS. Many doctors believe that people take too many without medical control; many psychiatrists believe that calming some neurotic people may have unfortunate end-results; and now a California pharmacist lets fly. . . . Dr. J. F. Bestor of U.S.C., speaking to the American College of Pharmacists, warns against the possible evils of combining the 'calmatives' with other CNS depressant drugs, either by intent or accident. Chlorpromazine plus morphine, chlorpromazine plus meperidine, reserpine plus general anaesthetics, any tranquilizer plus barbiturates or with alcohol, may all produce excessive or side effects. It is believed that chlorpromazine causes constriction of the sphincter of Oddi, but the jaundice and possible liver damage are eliminated by discontinuing the drug. Reserpine may cause bleeding of peptic ulcers, loss of libido, and even suicidal tendencies. Meprobroamate may cause "allergic-type reactions", but its chief hazard is habituation, so continuous therapy is discouraged.

Dr. Bernard Halpern of Paris, one of the discoverers of the antihistamines, has recently spoken in Los Angeles before the American Academy of Allergy. His most notable item of news was called by the daily papers "A System To Make People ALLERGY-PROOF." He has been working with a preliminary drug called '1935L', which acts as a HISTAMINE-LIBERATOR, and it has caused a great improvement in clinical allergy. . . . Dr. Halpern is working toward an improved drug of that sort and hopes to find one which will completely clear the tissues of histamine.

Another piece of news from Arizona hospitals is the election of A NEW PRESIDENT. Guy M. Hammer, administrator of the Good Samaritan Hospital in Phoenix is the new 'boss' (which is an easier name than 'administrator' or 'superintendent') of the Arizona Hospital Association. . . . The other officers were spread around the state, with James Cline of Globe and Florence Ladner of Casa Grande on the slate.

Upjohn's weekly 'Scope', a newsy publication, had a picture of fifteen contenders for the NATIONAL JUNIOR AND BOYS' TENNIS CHAMPIONSHIP, all of them SONS OF PHYSICIANS.

. . . The Arizona angle is the fact that two of the boys were SONS OF PHOENIX M.D.'s, — Paul, son of Dr. P. V. Palmer, and Rusty, son of Dr. K. C. Baker. . . . This is a fairly high percentage of doctor's sons, and of contenders.

Proof that sweating, and ODOROUS SWEAT, can be managed is now available. Odor is not an intrinsic property of apocrine sweat, but is due to the action of surface bacteria. It has been shown that an antibiotic ointment (Abbott's Bacitracin-Neomycin) will suppress the wicked germs all by itself. . . . The routine of getting rid of axillary hair, washing the area daily, and keeping the clothes clean is probably a good idea, but it is good to know of the ointment as a clincher. No excuse now unless the sense of smell is gone.

## New Copy Maker cuts billing costs



**All-Electric process directly copies your itemized account cards in just 4 seconds!**

The All-Electric THERMO-FAX "Secretary" Copying Machine makes statements directly from your itemized office account cards in just 4 seconds! Copies are exact. No proofreading necessary. No time consuming retyping. Exclusive All-Electric process uses no chemicals or negatives...you copy originals in one direct step. Cost per copy as low as 4½¢. No special installations needed.

Call now for demonstration on the new all-Electric way to simplify your billing.

HEINZE • BOWEN • HARRINGTON, INC.

**H·B·H**  
424 NORTH CENTRAL AVENUE

STATIONERS — OFFICE OUTFITTERS

Since 1918

Inside Parking — Phone AL 8-7161

## EICHENAUER NUTRITION CENTER

Arizona's Most Complete Service Institution  
Devoted To **Nutrition** — Established 1938

SALT-FREE & ALLERGY FOODS

DIBETIC FOODS & SPECIALTIES

FRESH FRUIT & VEGETABLES JUICES

ALSO COMPLETE LINE OF

**Wm. T. Thompson Co.**

STANDARDIZED VITAMINS —

Every Vitamin For Every Need

18 S. Central

PHONE: AL 3-2880

MAIL ORDERS FILLED

## **MALPRACTICE SUITS The Physicians Liability For Negligence of Third Persons:**

By Jesse D. Hamer, M.D.

Medico-Legal Committee

Phoenix, Arizona

**I**N A NEIGHBORING state last year, three malpractice awards in three instances totalled \$600,000, with dozens of smaller awards amounting to a much larger figure, were adjudicated against physicians. One of these, amounting to \$250,000, was awarded against a surgeon, who had delegated a technical procedure to a senior resident in a hospital, and the claim was predicated upon permanent paralysis following translumbar aortography with sodium urikon. It was alleged by the plaintiff's attorney that the surgeon had wrongfully delegated the procedure to a senior resident, and that more than the recommended amount of urikon had been used.

Action to recover damages for malpractice is grounded in negligence. The law does not presuppose that for every injury there must be a recovery. Negligence arises only from a breach of physician's legal duty, which is to exercise ordinary skill and care and his best judgment. What are his responsibilities then when he delegates certain technical procedures, or treatments to a third person; his office nurse, or intern or resident staff of a hospital, or to members of an operating crew during surgical procedures?

Let us examine in brief the physician's liability for negligence of third persons. It can be said that well defined rules have been handed down by the Courts in past instances, and these do impose liability upon a physician for injuries sustained by his patient by reason of negligence of third parties.

First, there is the doctrine of respondeat superior, which is applicable only when the relation of employer and employe exists. This type of relationship is established, when it is shown that the physician has the power to select, discharge, direct or control his assistants. Then if an employe causes injury to a patient while carrying out the physician's directions, the physician will be liable for injury sustained by a patient if the employe acted negligently. That rule can be applicable to an office nurse, or to a sponge counting

nurse hired by him in an operating room, should she count the number of sponges erroneously, and one be left inside the abdomen.

Negligence of nurses or other employes of a hospital is not imputable to a physician, unless it is established either that the physician controlled the hospital, or that a hospital nurse was incompetent and that the physician knew or should have known of such incompetency. In most instances, a physician is not responsible for mistakes or negligence of persons hired by a hospital. However, proof that a sponge was left in the abdomen places upon the surgeon the duty of proving the methods used to keep track of the sponges used in the operation, and that he acted in accordance with accepted surgical practice. The duty placed upon the surgeon of producing such evidence is frequently referred to as the duty of 'going forward' with proof to overcome the presumption of negligence. The duty of 'going forward' is not to be confused with the burden of proof which is on the patient. The duty of 'going forward' may shift, but the burden of proof never shifts; it is on the patient in the beginning and remains there to the end.

Quite generally, we physicians have believed that the rule says that we may be liable for the malpractice of a partner, or liable for injury thru the negligence of our assistants, agents or servants employed, but that we are not legally liable for the nurses or internes or employes of a hospital, unless the hospital is owned or controlled by a physician or physicians.

In the last twenty years, malpractice suits, over the country generally, have been rather numerous. There appears to be some departures from some of the previously established principles, in more recent years. Whether such departures are justified can well constitute a matter of difference of opinion. Nevertheless, as cited previously, a surgeon was handed a quarter of a million in damages because of the alleged negligence of a hospital resident. In another case in Pennsylvania, a verdict was reversed upon a doctor, upon appeal, because a child sustained damage to the eyes, after a caesarean operation, when its eyes were cared for by an intern. The doctor directed that a certain intern should be his assistant and take care of the baby after delivery. It was contended that the baby's eyes were not irrigated properly

after instillation of silver nitrate, as required. In this case, plaintiffs did not claim that the doctor was personally guilty of negligence. The question was whether the doctor could be held, under the doctrine of respondeat superior, for the negligence of the intern; or in other words, whether the intern was the agent or servant of the doctor. The next question in the case was whether the intern, an employe of the hospital, could be the agent or servant of the doctor. It was up to the jury to decide, after the doctor had admitted, under cross-examination, that all of the persons in the operating room were subject to his control or right of control with regard to the manner in which they performed their duties. This is always an important test in determining whether a person is an agent or servant. The Pennsylvania Court said:

"If then it be true that defendant has supervisory control and the right to give orders to the intern in regard to the very act in the performance of which the latter was negligent, it would follow, according to the classical test of agency, that a jury would be justified in concluding that the temporary relationship between defendant and the intern was that of master and servant, and that consequently defendant was legally liable for the harm caused by an negligence on the part of the intern." The Court held further: "In determining whether the intern was defendant's servant at that time, the mere fact that he was then in the general employ of the hospital would not prevent the jury from finding that he was also at that same time the servant of the defendant, if he was then subject to his orders in respect to the treatment of the child's eyes with the silver nitrate solution."

Some subsequent cases in the same state have only somewhat limited the effect of the rule laid down in the above case. The inherent danger of this kind of a situation remains apparent, however.

In 1914, Judge Taft in *Ewing v. Good*, established the general rule that the doctrine of *Res Ipsa Loquitur* is not applicable in malpractice cases, but since that time, particularly in more recent years, many cases have been decided against doctors which are exceptions to that rule. *Res ipsa loquitur* is merely a short way of saying that the jury may be

warranted in believing that an accident of a particular kind commonly does not happen except in consequence of negligence; and, hence, there is a presumption of fact from which a jury may find that it happened in consequence of negligence, unless the defendant produces evidence of the actual cause of the injury. The principle upon which the rule rests and the circumstances under which it should be applied are these: It is not the injury, but the manner and circumstances in which the injury was sustained that justify the application of the rule and the inference of negligence.

Generally, this rule is not applied to the ordinary malpractice case, the reason for not applying it being that a physician or surgeon does not undertake to insure a good result and the result of medical treatment or surgery is not so certain that an inference of negligence attends a failure to effect a cure. However, when the rule of *res ipsa loquitur* is allowable in a case, it raises a rebuttable presumption that the physician was negligent, thus entitling the patient to have his case decided by a jury unless the circumstances surrounding the injury are satisfactorily explained by the physician to the satisfaction of the Court.

The highest tribunals of some states have held that an explanation, not improbable in itself, uncontradicted either by the results of cross-examination, or by direct evidence contrary to the explanation, entitles the defendant physician to a dismissal of the complaint or the direction of the verdict. Courts of other states have held, however, that the explanatory evidence is almost always to be submitted to the jury. In such states, a surgeon cannot relieve himself from liability for injury to a patient in leaving a sponge in the wound by any custom or rule requiring the nurse to count the sponges used and removed, and his reliance on such statements, even though such testimony is uncontradicted.

What does the effect of departures from the rule that the doctrine of *res ipsa loquitur* does not apply, in a malpractice case? Its effect is to permit a bad result or an unusual happening to require the physician or surgeon to explain, and to, perhaps, establish a *prima facie* case for the claimant. In other words, the burden of proof may be shifted from the claimant to the physician or surgeon.





*more than hope...*

When the contents of Pandora's Box were released,  
Hope alone remained. To the allergic patient,  
faced with a veritable Pandora's Box of discomforts,  
'Perazil' offers far more than hope. It gives  
ability to withstand allergens, without reactions.

# **'PERAZIL'**

brand Chlorcyclizine Hydrochloride

*long-lasting action • exceptionally little side effect*

*For children and adults:* SUGAR-COATED TABLETS OF 25 mg.  
SCORED (UNCOATED) TABLETS OF 50 mg.



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

# Organization PAGE

## CIVICS

By Norman A. Ross, M.D.

**M**ENTAL HEALTH IN ARIZONA, a report of a survey conducted by the Governor's Arizona Mental Health Research Committee, is available to members of this association on request. Address: (MH) University of Arizona Press, University of Arizona, Tucson, Arizona.

### HIGHLIGHTS OF RECOMMENDATIONS

The recommendations that follow are based on the replies of 1064 representative Arizonans to the questionnaires which constitute the basis of the report. Special attention should be given to the fact that while some problems are accepted in Arizona as within the province of the State or of state controlled agencies, others are usually considered to be the responsibility of the local communities.

#### STATE LEVEL

1. A central board should be established to conduct a more searching investigation of the mental health needs of the State and to coordinate state mental health agencies. The eventual goal should be a combining of the functions of this central board and the advisory and coordination activities of the State Division of Mental Health.

2. Training facilities of the State should be expanded to include programs in clinical psychology, social work, psychiatric social work, psychiatric nursing. This expansion can be accomplished both through development of the services of the Western Interstate Commission for Higher Education (WICHE) in mental health areas and development of additional training facilities at the University and the State Colleges.

3. New institutional facilities for juvenile delinquents with serious mental conditions should be established in the State, and mental health functions of our present institutions should be extended.

4. Provision should be made to increase the staff of the Arizona State Hospital with the view to hastening recovery of patients and their return to society. Increases in the hospital staff

should be made selectively, with the object of approaching more closely the standards of the American Psychiatric Association.

A neurological institute in conjunction with the State Hospital with outpatient clinics in both Phoenix and Tucson should decelerate the expected increase in mental problems and should save long periods of hospitalization for many individuals with acute mental problems. The establishment of such an institute merits serious consideration, especially in view of the near certainty that the proportion of aged persons in Arizona will before many years match that of the nation, thus bringing about an increase in neurological problems.

5. Funds should be provided for support of mental health research in the institutions of higher learning and in other appropriate state agencies.

6. Arizona should cooperate with WICHE in setting up a research information center to report research proposed, in progress, and complete. Such an agency should publicize the availability of funds for research in mental health.

7. Traveling clinics should be established by the State Division of Mental Health to serve the small towns and rural areas of the State. It would be desirable to have two such clinic teams each consisting of a psychiatrist, a psychologist, and at least one psychiatric social worker. Aid for the support of such traveling clinics would be available through the National Institute of Mental Health.

8. The services such as those provided by the Arizona Children's Colony will have to be expanded to meet the growing needs of the state.

9. Penal and correctional institutions of the State should be provided with the services of a psychiatrist, a psychologist, and one or more social workers.

#### LOCAL LEVEL

1. Aid should be given in local areas to increase the psychiatric services available in

private hospitals. Saint Mary's Hospital in Tucson and Saint Joseph's Hospital in Phoenix are both seeking financial support for the establishment of neuropsychiatric wings. Residents of Arizona should aid these and other hospitals in attaining such goals.

2. Psychiatric facilities and services of the county hospitals should be improved.

3. Adult psychiatric clinics are needed in the more populated centers of the State. Minimal professional staffs for these clinics should consist of a full time psychiatrist, a psychologist, and at least one psychiatric social worker. Although the initiative for these clinics must be taken locally and a part of the money needed must be raised locally, some aid for such clinics is obtainable from the National Institute of Mental Health through the State Division of Mental Health.

4. The child guidance clinics in the Tucson and Phoenix areas should be enlarged in order to shorten the waiting period for service from these agencies. Minimal staffs for these clinics should include one full time psychiatrist, one or two psychologists, and two psychiatric social workers. Other communities should be encouraged to establish child guidance clinics when feasible.

5. The social service agencies throughout the communities of the State need more professional workers. In many there are vacancies. These can probably be filled only by increasing the attractiveness of employment. Salaries must be increased and working conditions improved. (Note: Social service agencies should be understood to include all public and private agencies engaged in mental health activities.)

6. The mental health facilities of the public schools should be continued and strengthened.

#### THE PROBLEM OF THE AGED

In Arizona responsibility for aged persons who require care and who cannot be taken care of in their homes is recognized only in a very limited degree by the State government, as, for example, the Pioneer's Home. Care of the aged by the county varies markedly from county to county. This report shows that the aged constitute a major percentage of inmates of state mental hospitals, where the aged are usually classed as mentally ill although many of them need only domiciliary care. Additional

provision should be made for these citizens and without the "stigma" of mental illness. Domiciliary care for the aged will allow for major economics in our State plan because such homes for the aged are far less expensive than are mental hospitals.

The problem of the aged is one that will increase with increasing population and with stabilization of the population.

## WAYLAND

PRESCRIPTION PHARMACIES

INC.



13 E. Monroe Street

Phone ALpine 4-4171

PHOENIX, ARIZONA



FREE DELIVERY

For all YOUR DRUG needs-

Phone MAC  
**ALpin 4-2606**  
or  
**ALpin 2-1573**  
In Arizona Since 1920

FAST FREE DELIVERY

**MACALPINE'S**

THE *Rosell* STORE • 2303 N. 7th St.

## REPORTING PERSONAL INJURIES\*

By John J. Barton

Attorney John J. Barton, Los Angeles, presents an attorney's viewpoint of the medical report prepared in connection with automobile accidents. The author is a member of the California and Nebraska Bar Associations and prior to entering private practice, represented automobile insurance companies as both attorney and claims adjuster. — Editor

**W**ITHOUT the advent of automobile liability and medical pay insurance, medical reports would not have assumed the importance they have today. Because of insurance, the demands of the parties who are to be affected by the benefits weigh heavily on doctors. I often wonder if the medical profession realizes the importance of reports and how they affect the outcome of negotiation between the injured party and the insurance company — and subsequent law suits.

Does the medical profession realize, for example, the weight their reports are given by the insurance claims department when a bodily injury claim is presented? I am sure that if such were the full realization, meager and incomplete reports would never be submitted. Yet this is not the case. Either from lack of time or interest, the medical profession often refuses to render the report a patient is entitled to.

As most doctors know, an injury sustained by a patient because of the negligence of another is compensable to the injured party. In most cases, the negligent driver has liability insurance and a claim will be directed to the insurance company. Once a claim is presented, the insurance company will be represented by experts in their respective fields. This is only natural since paying or resisting claims is their business, and in order to compete, these companies must have men thoroughly experienced in their fields. The claimsman is usually well versed in medical matters as well as the legal aspects of a claim. Yet if his training or experience is deficient in the medical aspects of the claim, he has merely to call in a trained insurance doctor who will give a thorough medical examination and submit a comprehensive report.

### SHOULD REFLECT ENTIRE PERSON

The claim can be presented either by a pa-

tient acting as his own negotiator or represented by counsel who negotiates for him. In the latter event, the status of negotiation becomes more balanced since, against the array of experts for the company, the patient's attorney should be able to negotiate successfully. In either situation, the medical report of the doctor and how it is written, will play a predominant role in the negotiation of the claim.

Other things being equal, a well-reported injury will be worth considerably more than an injury of the same type poorly reported. This is so because the claimsman of the insurance company relies so heavily on what the medical report shows. He may never see the patient and in most cases, the person in charge, the claims manager, who finally decides the value of a case, never sees the injured party. His only evidence of the nature of the injury is the medical report. This to him is the person. Because this is so, the medical report should reflect the entire person as much as possible. It should be a "word-picture" of the injured party.

Other than oral reports of an injury, which are not practical, there are only two methods of submitting written reports. These are the "form report" and the "narrative report." Let us examine the merits of each separately.

### THE 'FORM' REPORT

A form report is usually a one-page affair on which a doctor is asked to record all he has observed concerning his patient. In effect, it is expected that the doctor can give a true "word-picture" of his patient by this means. The shortcomings of this method are all too obvious. The only benefit this writer can see in the use of this method is that it saves time for the doctor and the insurance company. The doctor has a greater duty to the patient than he does to himself. The doctor should always keep in mind that this form was prepared by the insurance company and not by his patient.

How many doctors can rightfully report the x-ray findings within a space 1 inch wide and 6" long as provided by the form report? If they could, the roentgenologist would be remiss in his report to the attending physician. Such, however, is not the case. The roentgenologists' reports this writer has seen are the most thorough of medical reports. Their reports of x-rays taken, whether there be injury or not,

\*Reproduced by permission of GP and Mr. John J. Barton.



will invariably constitute a full page. The entire report of the roentgenologist should be incorporated in the attending physician's report, since it constitutes a major portion of the "word-picture" of the patient. To give the conclusions only, is to fail the patient in presenting this complete "word-picture." How incomplete the form report is can nowhere be better illustrated than in reporting the x-ray findings.

All doctors realize that when a patient comes to them with a history of an injury, the doctor owes the patient a thorough examination. How can an examination be thorough if the doctor uses the form supplied by the insurance companies as a guide? Even though the doctor may not use the form as a guide in examination and treatment, yet he does so when writing the report on the form.

I believe that the doctor usually conducts a very thorough examination but that when he tries to record what he has observed onto the form, finding it inadequate, he nevertheless proceeds to answer the questions as contained in the form.

#### NEED COMPLETE REPORT

What of the patient's history of the accident? Has there been an examination of his head even though no complaint of head injury has been made? The doctor owes his patient this examination, yet the form makes no provision for it. Undoubtedly, the doctor makes this examination as a matter of good practice, but in using the form he fails to make it known, unless he does find an injury. Reference should be made that the head was examined, even though no injury was located. This information is a vital part of the "word-picture" of the patient.

The same can be said of the skin, eyes, teeth, tonsils, throat, thyroid, heart, blood pressure, lungs, abdomen, genitourinary, extremities, neurology and spine. Without some discussion of these, how can a doctor expect a claimant to get a full "word-picture" of the patient? In fact, how can the doctor expect anyone to believe that a thorough examination has been given if the same is not reported? The form is inadequate to meet these demands of good medical practice.

How many doctors can diagnose a personal injury without knowing something about the facts of the accident? It is not intended that the doctor know the technical facts, but he

should learn, in order to facilitate his diagnosis, the nature of the impact, i.e., was the patient seated behind the wheel, or where was he seated? This is important, as it may indicate the area and extent of the injury.

Also, the doctor must ascertain how the patient was thrown about. It is readily recognized, for example, that the patient's injuries and subjective complaints will usually be different if he is thrown to the pavement than if he were thrown onto a lawn. If he were not thrown from the car, then it is important to know what part of his body came into contact with what part of the car. The form is inadequate to cover this important aspect of the case.

#### WORD-PICTURE IMPORTANT

Nor does the form provide any space to describe the type or locale of pain. The type and nature of treatments are also important because they bear directly on the important subject of pain and suffering.

At this point, the doctor may question the importance of pain and suffering. The injured party is entitled to compensation for pain and suffering as a part of the total settlement. Although the doctor cannot accurately know the degree of pain and suffering, yet from his training and experience he knows the comparative aspects involved. He knows that certain injuries are more painful than others. He should record this observation, together with the subjective complaints of the patient. Only by doing this does the doctor help report the true value of his patient's case. The form makes no provision for this important aspect of the total "word-picture."

Where there is injury of a permanent nature, the medical form becomes glaringly inadequate. Any doctor who has completed forms for the industrial accident commission knows that a statement by the attending physician as to permanent disability must be backed by reported facts. So in auto accidents, the reporting physician must be thorough in order that the client may obtain just compensation.

The medical form contains space for prognosis. To this writer a prognosis is merely a calculated guess. In very few types of injuries, a prognosis can be given with some degree of accuracy. But this is more the exception, in personal injury cases, than the rule. Because the guess of the attending physician could be detrimental to the

patient's subsequent negotiations, it is submitted that the doctor use this mode of approach sparingly. A flat assertion as to an early prognosis can prove very embarrassing to the doctor and costly to the client should the injury prove of greater duration than was expected.

#### RESERVES GAUGED BY REPORTS

The medical report forms are submitted by the insurance companies for a number of reasons. The forms are sent out in the hope of getting the earliest possible report so that the company can post a reserve. This is a figure within which the company hopes to settle the case. If the medical report is poorly written, the reserve may well reflect this by being lower than the case value really is. However, if the report is thorough and accurate, the reserve will better reflect the true value of the case.

Insurance companies will seldom settle a case above the reserve posted. It is true that some companies will adjust their reserves, but this is done only because the first reserve posted was estimated without the medical report. Not only is this form used as a means to gauge the potential exposure of the insurance company, but it will divulge much information that may not be to the client's best interest to reveal at that time. Of course, the insurance company has the medical man on the spot with an early report, and if his later report does not reflect consistency with the first report, this factor will be used as an arguing point in the negotiation of the claim. In fact, it may be used in cross-examining the doctor should the matter be tried.

Many doctors are in some sort of hurry to get a medical report form in to the company when there is medical pay coverage involved. They know that their medical bill will be paid promptly. Yet do they know that this same medical report may well find its way into the hands of the insurance company representing the third party? Because this medical information is confidential communication, I seldom permit an examining physician to send a medical report to the medical pay company until I have settled the bodily injury with the company representing the negligent driver.

Nearly all attorneys will protect the doctors on their bills, so why rush to divulge this information? Nor will the patient's rights be jeopardized under the medical pay provisions of the policy.

#### SHOULD HEAR NEGOTIATIONS

I am sure it would be quite an experience if a doctor could sit in and listen to the negotiations conducted between an attorney and a claims adjuster. I am confident the doctor would soon learn the importance his report plays in the discussion. In fact, because the report does play such a vital role in negotiations, the better personal injury attorneys rarely permit the claims adjuster to read the report. In fact, they read the report to the adjuster and never relinquished a copy until the case is settled. This prevents the adjuster from picking the report apart and arguing about the most unequivocal parts. The doctor should keep in mind that negotiations of a personal injury case are a dress rehearsal of the actual trial of the case, but with no holds barred except good deportment and proprietorship of language.

As an example of the misuse of prognosis, the ordinary neck injury arising out of the so-called whiplash effect, lends itself readily to discussion. In many of these cases, there may be some latent injury, yet the doctor may believe these are only subjective complaints and therefore give a very optimistic prognosis that the patient should recover at a very early date. It becomes very difficult for the patient or his attorney to convince the insurance company, should his pain continue beyond the prognosis submitted by his attending physician. In fact, it becomes almost impossible once the patient has been examined by the insurance company doctor.

#### BE WARY OF PROGNOSIS

It is better policy from the patient's standpoint to forego any statement about prognosis and use this only when treatments to the patient are nearing an end. Of course, if the patient is fully recovered, the doctor must so state. Yet many examining physicians rightfully hedge, even at this late stage, so that they will not be caught short should the patient have a relapse. Many of the experienced doctors, that is, those who write reports for plaintiff's attorneys, skip this heading entirely and close their reports under any one of a number of headings such as "Comments," "Conclusions" or "Analysis."

Another reason that the insurance companies seek these reports at an early date is that they want to learn whether the persons involved should be examined by the insurance

company doctor. I am not saying that the insurance company is not entitled to an examination. The question of when a client should be permitted to be examined by the insurance company doctor is one on which many personal injury attorneys are in disagreement. I think it depends upon the nature of the injury, the experience had with that particular company in past claims negotiations and the stage of the treatments.

Where the form must be used, however, and this will usually happen where the patient is not represented by counsel, the doctor should not go out on a limb in completing the form. He has a right, and in fact a duty, to reserve judgment. I believe that even where the patient is not represented the doctor owes him the duty of submitting a final report in narrative form. Because of this, the doctor should be extremely conservative when completing the preliminary form report, if he desires to submit such a report.

#### COMPENSATION IN ORDER

One of the commonest complaints of doctors concerning the narrative report is that it is time consuming. What the doctor really means is that it is effort exerted without compensation. But need this be the case? Most plaintiff attorneys will gladly pay a nominal fee for such a report. This is in addition to the regular charge for the treatments. A good narrative report may take as much as one hour of the doctor's time. His time and knowledge expended in completing this report is readily worth the charge. The injured patient's attending physician is rightfully entitled to a charge for a thorough narrative report.

Where the patient does not have an attorney, the doctor cannot expect the patient to react favorably to such a charge, since he seldom realizes the service that would be rendered him in submission of such a report. Where an attorney asks for a report, the doctor should first reach an understanding with the attorney as to the charge. The charge, of course, will depend upon the time spent, which is usually related to the seriousness of the injury.

A narrative report should be broken down into subheadings. I have seen them run three or four pages without subheadings. This proves both burdensome and difficult for the attorney and the insurance company when they attempt to reach some decision as to the value of the

case. A report with subheadings also gives the attending physician a guide when dictating his report so that he will cover all phases of his examination and treatment.

#### SUGGESTED SUBHEADS

There is no set pattern for subheadings. However, they should be used to bring out a true "word-picture" of the patient, his injuries, pain and suffering, treatment and permanent disability, if any, and possible time off to recuperate. The topical outline should be flexible enough to cover any type of injury. If it is not, the doctor should be ready to vary the outline to meet the specific needs. As a suggestion only, the outline might contain these headings.

1. Statement of the injury, covering briefly the facts of the accident.

2. Past history of injury and sickness.

3. Visual characteristics of patient's over-all characteristics:

- a) height; b) sex; d) age; e) general physical appearance; f) general mental response.

4. Head.

5. Skin.

6. Eyes.

7. Teeth.

8. Tonsils.

9. Throat.

10. Thyroid.

11. Heart.

12. Blood Pressure and Blood Count.

13. Lungs.

14. Abdomen.

15. Genitourinary.

16. Extremities.

17. Neurology.

18. Spine.

19. x-ray.

- a) verbatim transcript of the report submitted by the roentgenologist; b) Roentgenologist's conclusions; c) Attending physician's explanation of these comments and any further comments of his own.

20. Diagnosis (Break down into component parts and show how each relate to the other.)

21. Analysis, Comment or General Conclusions. (This heading in lieu of prognosis.) It should include any time off from work.

Most of these subheadings are self-explanatory. Most doctors will readily understand the reasons for examination of the particular parts and their relative importance. All doctors will readily understand why a blood count should be taken. As they know, a change in the blood count of an injured victim can tell much about his condition. So too, might the other tests recommended. These tests and examinations are not time consuming and by performing them the doctor is only rendering the type of service to which his patient is entitled. If the respective

parts examined are normal or if any of the tests are neutral, the doctor should so state under the appropriate heading. This is an indication that the examination was conducted and should satisfy all concerned.

#### DISABILITY IMPORTANT

Among other matters, the doctor should discuss, under the "Conclusion" heading, the amount of time the patient will be disabled and unable to work. If there will be any temporary disability, the total time should be recorded. This aspect of the report is very important, for should the patient be unable to continue employment, without the doctor's confirmation, most insurance companies will rightfully make no allowance for the medically unverified loss of earnings. Also, in this same section, the doctor should make some estimate of the future medical bill, together with a statement of the bill to date.

Nearly all attorneys will agree to protect the doctor on his bill from the final settlement. Where, however, there is no attorney on the case, the doctor should have the patient sign a lien form and this should be sent to the insurance company by registered mail. Where the patient will not, or through an oversight has not signed, the doctor should still put the insurance company on notice that the medical bill is outstanding. Although insurance companies need not honor this request, many of them do as a matter of courtesy.

Many doctors will send the medical bill to the insurance company without the patient's or attorney's consent. This bill is just as much a part of the confidential communication between patient and doctor as the report. The doctor should direct the insurance company to the patient's attorney, in the absence of written authorization to divulge this information. Too often the doctor discusses matters in the bill other than the cost of treatments. Even if this is not the case, the bill should remain a part of the confidential report.

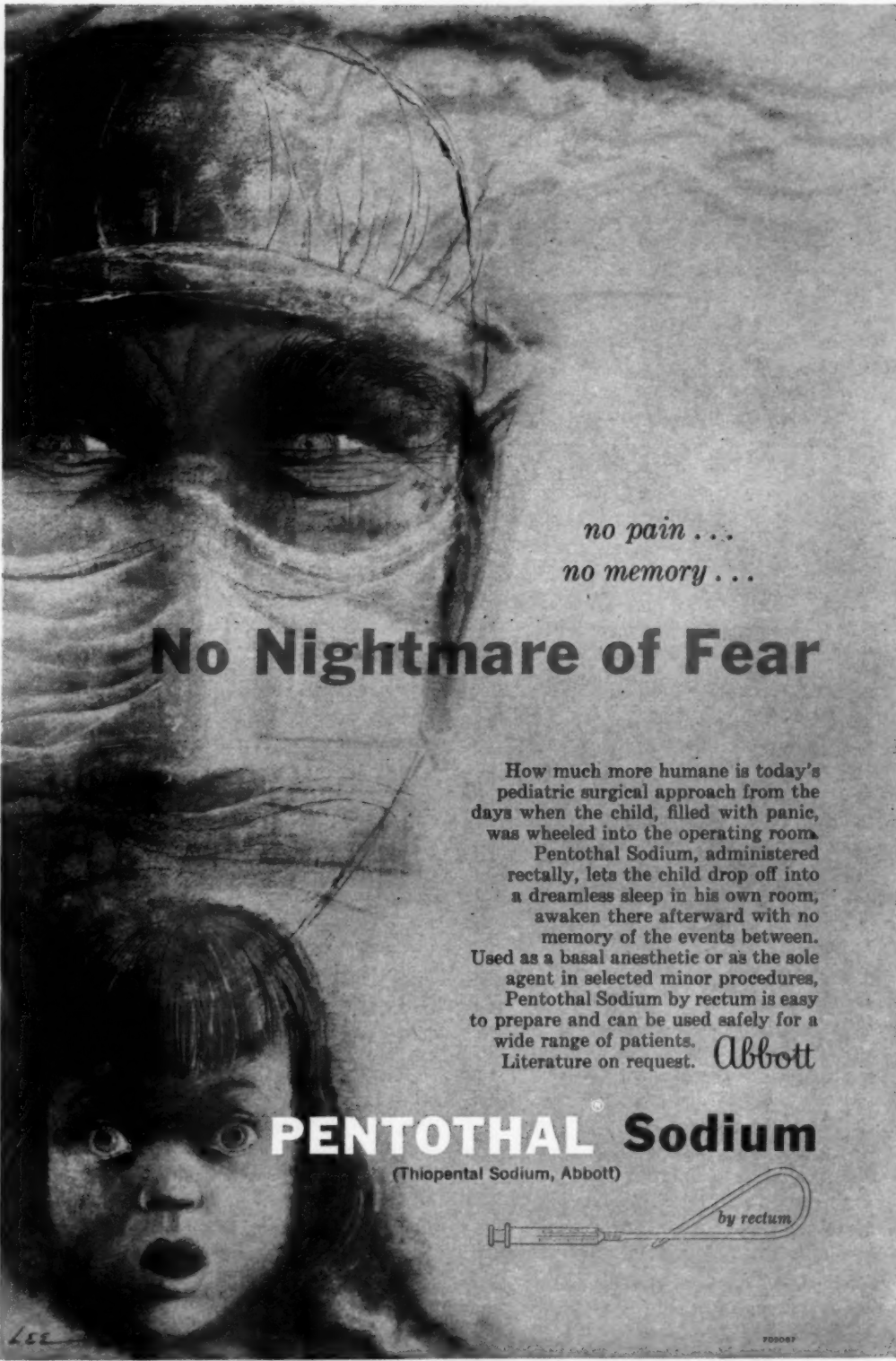
Where there is an attorney in the picture, the doctor should feel free to consult with him concerning the form of the medical report. Often he can offer many good suggestions. This is both proper and ethical, since the way the report is written may very well determine the outcome of the claim. Report writing should be elevated to a position of prime importance.

EVERY WOMAN  
WHO SUFFERS  
IN THE  
MENOPAUSE  
DESERVES  
"PREMARIN"

*widely used  
natural, oral  
estrogen*

AYERST LABORATORIES  
New York, N. Y. • Montreal, Canada  
5646





*no pain . . .  
no memory . . .*

## No Nightmare of Fear

How much more humane is today's pediatric surgical approach from the days when the child, filled with panic, was wheeled into the operating room.

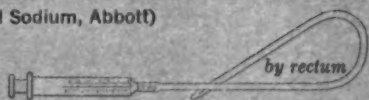
Pentothal Sodium, administered rectally, lets the child drop off into a dreamless sleep in his own room, awoken there afterward with no memory of the events between.

Used as a basal anesthetic or as the sole agent in selected minor procedures, Pentothal Sodium by rectum is easy to prepare and can be used safely for a wide range of patients.

Literature on request. **Abbott**

**PENTOTHAL<sup>®</sup> Sodium**

(Thiopental Sodium, Abbott)



700067

## FEDERAL AID TO EDUCATION

By L. D. Sprague, M.D.

**I**N AN address before the House of Delegates at the Clinical meeting of the AMA in Seattle, Washington, Dwight H. Murray, president of the American Medical Association, spotlights a concept we have long held personally. Dr. Murray stated, "Physicians can no longer afford to remain aloof to problems on the international, national and local level — as doctors we cannot get away from them by claiming that our only interest is in the sick, and that we cannot be bothered by political, social and economic problems." The theme of this address is so fundamentally sound that we urge you to review it in *Arizona Medicine*, Vol. 14, No. 2, page 90.

In view of Dr. Murray's plea for a "united, forceful and informed profession" we shall present in the coming months topics of interest to Arizona physicians concerning international, national and local problems. It is somewhat difficult to be truly informed in this day of high pressure salesmanship (more aptly termed brainwashing). Much propaganda designed to further the interest of the propagandist rather than that of the public is fed through the press and other media of communication with wild abandon and with little attention to actual fact. The public therefore tends to read or hear one viewpoint, that designed to swing public opinion to sympathy with and support for that which the propaganda machine wishes. We shall try and present factual information from documented sources, it may not at times agree with that found elsewhere, it will, we feel, present food for thought, and a more informed profession.

**"W**E ALL have an inescapable responsibility to fact facts as they are, not as we wish them to be. We occupy positions of leadership and influence in our communities, some official and some unofficial. As such, we are exerting an influence either for or against the order of things now existing." These are the words of Mr. W. C. Mullendore, President of the California State Chamber of Commerce in an address before the Thirtieth Annual Sacramento Host Breakfast, Sept. 1, 1956. Certainly as doctors and citizens of our state and great country we are exerting an influence either for or against the order of things now existing. Unless we are alert and informed, by our apathy and indifference we give credence and approval to that which we could otherwise discredit and disapprove. The present controversy over Federal Aid to Education is but one subject about which doctors should be informed. Federal Aid to Education is likely to become law in the 85th Congress unless enlightened citizens vociferously oppose it. The professional educationists headed by the National Education Association have built an enormously effective propaganda and lobbying machine. Much of the propaganda is fictional, nevertheless they have used it so

effectively and cleverly a majority of Americans gullibly have accepted as fact these excuses for federal aid — "A national educational crisis — a dire emergency — classroom shortages — persecuted and underpaid teachers — disgraceful shortage of teachers." These are some of the attention getting slogans which have been scattered far and wide for public consumption. Ironically the Parent Teachers Association, at least their national and most of their state leaders, favor federal aid. In our own state legislature in recent weeks one Republican representative joined with two Democrats in the House in introducing a memorial to Congress for federal aid to education. The memorial attempted to soften the threat to states' rights by stating that "any funds granted should continue to permit the states to formulate policies and procedures since it is agreed that administration at the local level provides maximum of efficiency and educational advantages to the school children of our nation." The National Education Association attempts to convey this same impression that federal aid can be had without federal control.

The erroneous concept of "federal aid without federal control" must be debunked! A 1942 de-

cision of the Supreme Court reads as follows: "It is hardly lack of due process for the government to regulate that which it subsidizes." In 1916 Congress passed the Smith-Hughes act providing for federal aid to vocational educational programs. Its proponents shouted from the housetops that its passage would not bring about federal controls, but exactly the reverse has happened. Regulations have been expanded by the federal government over the years to the point that it now requires some 108 pages of print devoted to administration of vocational education. The late Representative Lesinski of Michigan who in 1950 was Chairman of the House Education and Labor Committee which devoted a great amount of time to the study of federal aid to education stated after his committee had killed the bill, "It is impossible to draft a general federal aid to education bill which will not contain a great degree of federal control over local school systems — I am convinced that the hard study we have put to the question that no acceptable bill preventing federal domination of local schools can be drawn — I reluctantly come to that conclusion, but I had to face the facts." (Chairman Lesinski prior to the committee's study was a student of and an ardent advocate for federal aid to education.) There are many sound, logical and moral reasons against federal aid to education to counteract the nebulous arguments advanced for it by its proponents. One of the most convincing is the report of the Education Committee of the President's OWN Commission on Intergovernmental Regulations which stated: "We have not been able to find a state which cannot afford to make more money available to its schools or which is economically unable to support an adequate school system — federal aid is not necessary either for capital expenditure for new school buildings or for current expenses for public schools!"

The widespread fallacy that in federal aid someone else pays the bill must also be denounced. It's as simple as this, the federal government has nothing to give except that which it first must take from you in the form of taxes. In the process of giving it is also very wasteful of your money. Dr. Charles W. Pavey aptly describes this as "federal aid is like taking a quart of a patient's blood, giving him back a pint, and telling him he ought to feel better

now that he has had a transfusion!" An article, "The Biggest Con Game in Politics" by Alfred E. Driscoll, former Governor of New Jersey, December issue of Readers Digest, is a revealing lesson on how federal grants-in-aid are this fiscal year adding five BILLION dollars to your federal tax bill. Waste and extravagance are almost built into government spending. There is also a well founded theory that big government spending reaps a harvest of votes and it has become a habit with some of our representatives to vote for something in the interest of political expediency rather than what is best for the best interest of his constituents. Voters should wake up to the fact that they are putting in more time working for taxes than for food and other items of necessity! We might appropriately ask how happy are you with your own federal income tax bill this year? If a private trustee were as wasteful of the funds of his beneficiaries as is the federal government of the taxpayers' money that trustee would be restrained and removed by any honest court in the country. Unfortunately the government can only be restrained by the outraged clamor of the American people, amplified by the resolutions of their state legislatures. Senator Byrd, Chairman of the Senate Finance Committee, recently stated: "Why may I ask, for example, should the Federal Government embark upon a \$2 billion local school construction program and the health insurance program proposed in the budget pending? This will open up a Pandora's box of federal spending. These two alone will cost billions. They start as a mouse and quickly grow into the size of an elephant. It is time for the American people to realize that while we have great potentialities of wealth, there is a limit beyond which we cannot go. We must realize that creeping paternalism of the federal government is just as bad as creeping socialism. The end result is the same — the destruction of the principles of our free government." Some way, some how, informed patriotic citizens must bring enlightenment to parents and teachers that federal aid is not "something for nothing."

The American people are not doing too poorly by their schools. The United States has the highest per capita expenditure for education and spends a larger share of its national income on education than any other nation. During the past five years 1950 to 1955 state and local

expenditures for public schools increased by 73%. The shortage of teachers in classrooms is somewhat of a myth and local and state communities are keeping ahead of their educational problems WITHOUT federal aid. The figures on public school enrollment and school construction compiled by the U. S. Office of Education are informative in this regard. The net result shows that in the last ten years classrooms provided in communities and school districts all over the nation were in EXCESS of the increased enrollment. Strangely enough you never hear these official government agency figures quoted by those in Washington, columnists or school lobbyists who continue to speak of federal aid to school construction only with supercharged adjectives like "pressing," "critical" and "imperative." The number of teachers in the public schools increased 69,000 from the fall of 1954 to the fall of 1955. It would appear that there are many flaws and weaknesses in the argument that there is a need for federal subsidization of the schools and that federal aid will solve so-called educational problems.

Perhaps nowhere has the case against federal aid to education been put better than by the Public Expenditure Council of the State of Connecticut: "It is infinitely more important that we settle down to sound thinking on the values of local participation and local citizen control of our schools, and finance them with the resources within our states, than to chase our own tax dollars through the depreciating process of federal bureaucracy and have them come back to us worth much less and accompanied by dictates on how we shall use them."

It is imperative that your elected representatives be informed concerning your stand on important issues of the day. Otherwise they may vote for what they feel is "political expediency" prompted by the flood of the propagandists' psychopolitical pressure. A true grass roots approach can cure many of the ills of our Constitutional Republic long suffering under the load of federal bureaucracy. Do your part now, it's later than you think. The depression "that will curl your hair," assuming that the Federal Government has left you anything to curl, can be avoided only by reducing needless government expenditures of the taxpayers' money.

## THE MONTH IN WASHINGTON

WITH CONGRESS now well along in its session, the list of health and medical bills totals several hundred. Some are minor — and few persons will be affected regardless what happens. Others just don't make much sense — and the committees, regardless of politics, can be trusted to let these measures die a peaceful death.

But there are scores of others — all important bills — that have some chance of passage, their prospects ranging from an outside possibility to a strong probability. At this stage they can be regarded as the raw material out of which will come the studies, the debates and the arguments in the months ahead.

One of the major health-medical issues is federal aid to medical, dental and osteopathy schools. On this the administration wants grants for construction and equipment only; some of the Democrats want to include money for operating expenses as well.

In number of bills introduced, the general subject of problems of the aging probably tops the list. And that is no surprise. For several years welfare workers, housing experts and recreational leaders, as well as physicians, have been looking for ways to help the retirement age population. Recently a special center was set up within the Institute of Health to devote its time exclusively to the aged. Outside government, voluntary groups have also been at work on the same subject.

Now the ideas developed by the years of discussion are coming to the surface in the form of legislation. Several of the bills would set up commissions, appointed either by the President or Congress. Another recommends that an existing House Committee make a study of the aging, similar to that suggested for the various commissions.

The commissions and committees would have one thing in common: They would further study and investigate in a field that many persons believe already has been plowed and replowed by investigators.

Several lawmakers want to get going right away. They would set up within the Department of Health, Education, and Welfare a new Bureau of Older Persons, which immediately would start out to solve some of the problems



through grants, demonstrations and more research.

Most controversial of the "help the aged" bills is one originally proposed by the then Social Security Administrator, Oscar Ewing, in 1951. It would allow 60 days a year of government-paid hospitalization every year for persons covered by OASI after they reach age 65. They could have this free service whether or not they were on retirement.

As in most Congresses, those who want to get the veterans more benefits and those who think they are getting too much already are coming to grips over new bills. Important in this group is a measure proposed by Chairman Teague (D., Texas) of the House Veteran's Affairs Committee that would tighten up procedures under which veterans with non-service-connected conditions receive hospitalization. But at the same time there is pressure from other quarters for a lengthening of the "presumptive periods" for various diseases. Where the law now states that a certain disease or condition will be considered service-connected if diagnosed within one year after the veteran's discharge, these bills would make the period two or three years.

Many other bills aimed at liberalizing veterans' benefits in various ways also are awaiting committee action.

Social security and taxes are other popular fields for the legislators. As expected, several bills call for lowering the age at which a disabled person can start receiving his social security pension, now set at 50. Many measures would change the income tax laws to allow more credit for medical expenses, and one proposes allowing the taxpayer to deduct premiums for health insurance from his income tax itself.

Of major interest to physicians and most self-employed is the Jenkins-Keogh legislation, which would allow deferment of taxes on a portion of income put into retirement plans.

Again, a number of lawmakers want the federal government to take a more active part in control of narcotics, barbiturates and amphetamines and treatment of addicts. One suggestion is to consider any shipment of barbiturates or amphetamines as part of intrastate commerce, on the theory that intrastate control is essential to interstate control. This and other bills

also call for strict record-keeping and registration (physicians excepted from these provisions).

A plan introduced in the last session and offered again would give the President the right to assume control over the production, distribution and use of any drugs or biologicals "for use in the prevention and treatment of disease."

Other medical bills will of course be introduced as the session moves on; those discussed here already are assured of considerable attention.

### ARIZONA MEDICAL ASSOCIATION COMMITTEE ACTION

By Donald N. McLeod, M.D.

#### 1. Legislation Committee.

ON JANUARY 31, 1957 a special meeting of the local membership of the legislation committee of the Arizona Medical Association Incorporated was held and several problems were discussed.

Following a request of the registered nursing profession seeking exemption of liability from the practice of medicine and the carrying out of their services with special reference to administration of medicine and intravenous injections, it was suggested that the Medical Practice Act be amended to provide; a. that this does not apply to any resident, intern, extern, technician, or nurse acting under the supervision or direction of a Physician and Surgeon duly licensed in this Association, so long as such resident, intern, extern, technician, or nurse does not hold himself out to the public generally as being authorized to engage in the practice of medicine; or b. that this does not apply to any resident, intern, or extern while serving in such capacity in an accredited hospital approved for the training of such resident, intern, or extern, nor shall it apply to technicians or nurses acting under the supervision or the direction of the Physician and Surgeon duly licensed in this Association so long as such resident, intern, extern, technician, or nurse does not hold himself out to the public generally as being authorized to engage in the practice of medicine; and c. this does not apply to Physicians and Surgeons living in other states who are duly qualified to practice medicine therein who shall be called in consultation in this

state by a Physician and Surgeon here legally entitled to practice medicine and surgery. Considerable discussion followed and it was decided that there is no need for providing further special exemption for those doctors called in consultation in this state by a Physician and Surgeon here legally entitled to practice medicine and surgery.

The Board of Medical Examiners of the State of Arizona have asked to be relieved of such duty and responsibility in the matter of patient sterilization procedures of the Arizona State Hospital. The Board believes that any board or committee sitting and making such determinations should have, within its membership a number of Psychiatrists. The Board is also concerned as regards to the cost of conducting necessary hearings and the time consumed in the carrying out of this function, particularly should there be any appeal from its decisions. It was recommended that the Board consider the matter of cost in the conduct of these hearings and if it is determined that the Board will not be in a financial position to carry on this service, the Board of Control of the Arizona State Hospital should include an appropriation therefor in its budget for the Legislature or the Legislature should be approached to provide a special appropriation for the function to fully cover expenses incurred.

Several bills were reviewed which were introduced in the 23rd Legislature, State of Arizona. The committee approved HB-15, an act relating to the prevention of hazardous dust and gas conditions and also approved HB-16, an act relating to occupational diseases and disability. No action was taken on HB-17, an act relating to public health and safety describing the method of reporting a contagious disease. HB-30, an act relating to agriculture and dairying permitting the retail sale of raw milk was disapproved.

The Arizona State Department of Health submitted for review rough drafts of bills proposed to be submitted to the present Legislature. As no opportunity as yet to review these bills by the committee was had, no action was taken.

In accordance with the recommendation of the Legislation Committee the matter of review and evaluation of the establishment of a State Medical Examiner system for Arizona versus modification and improvement of the existing

State Coroner system was referred to Arizona Society of Pathologists for study and recommendation.

## 2. Osteopathic Liason Committee.

The meeting of the above committee was held on January 31, 1957 in order to discuss a proposed bill which the Arizona Society of Osteopathic Physicians and Surgeons have indicated they wish to submit to the 23rd Legislature of the State of Arizona. This bill proposes to 1. eliminate the lay members in the composite of membership of its Osteopathic Board, realizing a board comprised of Osteopaths only; 2. Increase the compensation for its board members and secretary; 3. Provide that any unexpended, and unencumbered balance of its funds remaining at the end of the year shall not revert to the general fund, but be retained for future use by the board; 4. Increased power of the board in matters dealing with license application, suspensions, and revocations; 5. Eliminate the two years post graduate work requirement, providing instead a year internship prior to licensing.

Mr. Jacobson, counsel for the Arizona Medical Society has advised Mr. Divelbiss, counsel for the Osteopathic Society that, in the past, in matters such as this the attitude of the Association is as follows: where the public is not concerned and where it is a matter only of internal management the Medical Association usually takes no stand, believing this to be none of its concern; but where the public is concerned and where the public health might be affected (such as reducing the amount of training before an Osteopath be allowed to practice major surgery) the Medical Association frequently considers and usually does take a stand.

The main bone of contention of this bill is, of course, the cutting down of the amount of post graduate training that an Osteopath requires before he does surgery. The Committee in Medicine does not propose to stand idle and let a man come out of only an internship in a hospital accredited by the American Osteopathic Association, or its equivalent and do major surgery.

Another amendment in the proposed bill is that the Osteopath may designate himself and sign his name in any capacity, such as Osteopathic Physician and Surgeon, Osteopathic Phy-

sician, Doctor of Osteopathy, or he may use the designation of Physician and/or Surgeon as long as the initials D.O. follow his name without being required to prefix the words Physician and/or Surgeon with the word Osteopathic. The Committee in Medicine sees no reason to remove the designated Osteopathic title as this may only create confusion in the minds of the public as to the differentiation between an Osteopathic Physician and Surgeon and a Doctor of Medicine.

As to the use of any advertising statement of the character tending to mislead the public the Medical Committee advises that advertising of any sort should be prohibited in line with the ethics of medicine.

### 3. The Glendale Community Hospital.

It has been proposed to build a community hospital in Glendale and efforts have been made to realize the facility open to both Doctors of Medicine and Doctors of Osteopathy serving on a dual staff. Certain statements have been made for and against dual staff privileges and the local Doctors of Medicine have indicated their inability to so participate. A request was made by representatives of both healing arts to meet with the Board to discuss the problem.

## GOOD SAMARITAN HOSPITAL RECOVERY ROOM A Progress Note

By Wallace A. Reed, M.D.

**T**HE REMARK is sometimes heard today that "recovery rooms are a thing of the past." Evidence to the contrary is provided by the experience of Good Samaritan Hospital in Phoenix.

The Recovery Room, also known as the "Post-Anesthesia Room," was opened November 8, 1954. Three single rooms near the surgical suite were sacrificed to provide the needed space. The cost was considerable: \$11,000 for remodeling, \$5,000 for 10 Hausted stretchers, and \$4,000 for other equipment. Loss of revenue during the period of construction was not included as a part of the cost.

During the first two months, 637 patients were admitted. This number is slightly less than 50% of the 1296 patients receiving surgery during this period. In 1955, 6003 or 74% of the 8139 patients undergoing surgery passed through

the recovery room. In 1956, 6149 or approximately 73% out of 8497 patients spent their first post-operative hours in the recovery room. The summary of a "typical week" is shown in Table I. These results were obtained with a recovery room open from 7:30 A.M. to 4:30 P.M. Recently an evening shift has been added, so the percentage of those passing through the recovery room in 1957 will undoubtedly increase.

Early opposition on the part of some of the physicians has been replaced in most cases by favorable enthusiasm. This is borne out by the above statistics and by the fact that many patients who have received only regional or local anesthesia are ordered to the recovery room by their physicians for a further period of trained, uninterrupted observation. Here is another indication of the favorable reception the recovery room has enjoyed: In 1955, 62 patients from departments other than surgery were sent to the recovery room. These included patients from the outpatient department and some from x-ray who had been anesthetized. In 1956, this number increased to 97.

This 10-unit department is now open from 7:30 A.M. to 11:00 P.M. Monday through Friday, and from 7:30 A.M. to 4:30 P.M. on Saturday. It is administered by a charge nurse and an assistant, both of whom are graduates. Recently a third graduate was added to take care of the P.M. shift. As helpers they have two Senior students, three Junior students, and one Aide. They record each patient's condition on a pink sheet which becomes a part of the patient's chart. At their disposal they have excellent equipment: Hausted stretchers equipped with conductive rubber casters, conductive mattresses, side rails, restraint straps, a portable intravenous standard, and means of placing the patient in Trendelenburg's position; individual oxygen and suction units located in recesses in the wall; endotracheal tubes, laryngoscopes, a Kreiselmann resuscitator; emergency drugs and syringes; a tracheotomy tray; miscellaneous articles such as Levine tubes and urethral catheters. They can avail themselves of a physician from the surgical suite within seconds.

There is no doubt but that several lives have been saved because of the recovery room. Also, many cases of potential shock are de-



tected and corrected by relatively simple means in incipient stages. This means a saving to the patient in terms of conservation of his strength as well as the avoidance of added financial expense which often goes with treatment of more advanced stages of shock. With dependable personnel in the recovery room, its presence helps to conserve the energies of anesthesiologists and surgeons. For they need no longer worry whether their semi-conscious patients are being attended. They know they will be notified upon the slightest indication of impending trouble. In the occasional case when one of the patient's physicians cannot be reached, some other M.D. is consulted regarding any necessary emergency treatment. The recovery room likewise saves floor nurses much physical and emotional wear and tear. For most patients are well out of danger by the time they return to their rooms. Thus the recovery room has proved beneficial not only to the patients, but also to floor nurses and attending physicians.

Many patients are relieved to know they will not be seen by relatives during their emergence period. To cite an example: Wives whose husbands have never seen them without their dentures are glad to know that they may have their teeth again by the time they return to their room. Most relatives for their part, are relieved to know they won't be responsible for watching over a loved one during their recovery period. It is, of course, quite important to notify both patient and relatives that the patient will spend some time in the recovery room before returning to his own hospital bed. At Good Samaritan Hospital, after a patient has been received from surgery, the recovery room supervisor informs the floor nurse. The floor nurse in turn passes the information on to the patient's relatives. It is significant that most patients express the opinion they are favorably impressed by the added services afforded by the recovery room.

The objective of establishing the recovery room was to provide additional safety and service to patients; consequently, the charge has been kept minimal. The average charge is \$5.00, and at this price the expense of operating the recovery room has been balanced approximately by income. It is the feeling of Hospital Personnel that the initial expense of

establishing the recovery room has been more than offset by the enthusiastic response accorded it alike by patients, nurses, and staff physicians. And it is the feeling of many Phoenix physicians that rather than being a "thing of the past," the recovery room is a vital necessity of the present.

Table I  
"A TYPICAL WEEK"

Type of Surgery	Number	Average hours in R.R
T & A's .....	31	1.4
Abdominal .....	30	2.1
Pneumograms		
Arteriograms .....	3	1.6
Cystoscopy and		
Retogrades .....	7	1.4
Chest .....	2	1.4

### "... To Work Effectively Together"

By Leo E. Hollister, M.D.  
Veterans Administration Hospital  
Palo Alto, California

...<sup>0</sup>NE OF the benefits from the introduction of tranquilizing drugs might be the development of a closer working relationship between psychiatrists and other physicians. Pharmacotherapy is as strange to most psychiatrists as it is familiar to most generalists. On the other hand, psychotherapy is as strange to most generalists as it is familiar to most psychiatrists. It now appears that a large segment of patients in the offices of both psychiatrists and generalists require both forms of treatment. The obvious solution is for psychiatrists and generalists to find a way to work effectively together.

"The first step in bringing about a closer relationship is for the generalist to learn more about psychiatry. The generalist frequently sees the potential psychiatric patient early in his disorder. To be able to determine which patient requires psychiatric treatment and which patient can be handled with "supportive psychotherapy" often requires considerably more diagnostic acumen than is provided by the usual psychiatric training offered by medical schools. This matter is of some importance. The excessively tired, impotent middle aged man may be a more likely potential suicide than a case of male climacteric. A man with alcoholic gastritis might have doubts

<sup>0</sup>Medical Times, October, 1956.



about his wife's fidelity which troubles him far more than indigestion — a trouble which he might attempt to solve by killing her. The young wife with every complaint in the book might be a candidate for a psychotic break upon the addition of a relatively small stress, such as the birth of a child or the transfer of her husband to a new city. Yet all these tragedies could possibly be prevented by early recognition of the psychiatric problem underlying the physical complaints. Clearly additional post-graduate training in psychiatry for generalists could yield high dividends.

"A second way in which psychiatrists and generalists might be brought closer together would be to establish psychiatric units in local hospitals. The introduction of the tranquilizing drugs has made feasible the care of all but a few psychiatric patients in general hospitals. Psychiatrists would benefit by being brought from the isolation of private sanatoria and State Hospitals to a closer contact with the general medical community. Because some psychiatrists prefer not to be responsible for the administration of drugs to patients to whom they are giving psychotherapy, the collaboration of the generalist might be quite welcome. Having two doctors might be of some advantage to the patient, for he can vent his gripes about the psychotherapist to the generalist.

"A third way whereby generalists and psychiatrists could work together effectively is in the supervision of maintenance therapy with tranquilizing drugs when the patient is discharged from psychiatric hospitals. More and more patients are each day being released from hospitals on continued treatment with the drug. They require the services of a medical man familiar with the use of these drugs, but not necessarily a psychiatrist. Many of these patients can be kept out of the hospital indefinitely with proper after-care. The well trained generalist is in a good position to carry out this function."

### CANCER OF THE COLON AND RECTUM

**T**HE TENTH in the Cancer Society's series of monographs on the early diagnosis of cancer for the practicing physician is now being distributed to over 190,000 physicians and medical

students. This publication, "Cancer of the Colon and Rectum," written by Dr. Frederick A. Collier with the assistance of Drs. Henry K. Ransom and William J. Regan, all of the University of Michigan School of Medicine, Ann Arbor, should be of great interest and of considerable practical value in the diagnosis of cancer in these sites.

"Cancer of the Colon and Rectum" is being distributed in the same manner as was the recent issue of "The Physician and the American Cancer Society." Both publications are being sent to all physicians in this state by the Arizona Division of the American Cancer Society.

### CAMPAIGN NOTICE NO. 55

**A**TTACHED is proof of an ad especially prepared by the National office for medical magazines throughout the country. Again this year, emphasis is upon the "Fight Cancer With a Checkup and a Check" theme. The point is made that the check today means insurance for tomorrow; TODAY'S insurance is largely the checkup by the physician.

Included in the list of magazines to whom this ad is being offered are the publications of state medical societies. Our procedure for handling these journals continues to be as follows:

Upon receipt of an order for plates from any journal of a state medical society, we will ship the plates directly to the journal and will so notify the appropriate Division. This will provide an opportunity for the Division to contact the state journal to suggest that the name and address of the State Division be included in the ad. (The journal's printed can do this with ease.)

This procedure concerning the Division name will apply only to state medical journals, and only in those states where there is one Division of the Society.

This ad has been prepared in the following sizes: 5½" x 8", 7" x 10", 4¼" x 6¾".

Electros for state medical journals are supplied free. For other medical publications, the prices are as follows:

Ad No.	Title	Size	Price
1758	One in Four . . .	7 x 10	\$15.50
1759	One in Four . . .	5½ x 8	\$10.75
1760	One in Four . . .	4¼ x 6¾	\$ 8.00

# 1 IN 4 NOW 1 IN 3

Ten years ago, only one in four cancer patients was being saved. Today, you, doctor, can expect to save one in three — thanks to your own leadership, a more aware public, improved techniques of diagnosis and treatment. We expect this progress to continue to the point where half of those stricken by cancer will be saved. As yet, science does not have the know-how to save the other half.

That knowledge will come when the riddle of cancer is solved in the research laboratories. To support this vital work, and to carry on its education and service programs, the American Cancer Society seeks \$30,000,000 this Spring. We are again appealing to the public to "fight cancer with a checkup and a check."

The check is insurance for tomorrow. The insurance for today is largely in your hands, doctor. Fighting cancer with a checkup is our *immediate* hope for saving lives.

## AMERICAN CANCER SOCIETY



### PROTECT YOURSELF AS WELL AS THE PUBLIC

**T**HE NATIONAL Foundation for Infantile Paralysis urges all persons, at least up to 40 years of age, to take the shots. Over 25 per cent of the polio cases in 1955 were among older people and seven out of every ten respirator cases today are 20 years of age or over.

"Polio cases in the future, though fewer in number, may be concentrated in the upper

age group and may be of even more serious consequence than the general level of the past," Dr. Thomas Rivers, Medical Director of the National Foundation, said. "This situation will become more obvious unless the current reluctance of young adults to be vaccinated is overcome."

Members of every profession related to medicine strongly urge their contemporaries to take the vaccine — properly spaced to effect maximum protection.

"It requires nearly eight months to complete

the three shots if they are taken properly," said Dr. George E. Armstrong, Director of the Medical Center and Vice President for Medical Affairs of New York University, "and it is a lot cheaper than chancing a lifetime with a disability."

Performance of the Salk vaccine up to now suggests a potential effectiveness among persons who have received all three shots, properly spaced, of about 90%. With only one shot, one cannot be sure that one is safe or that the immunization will last after the first; a second shot increases one's chance of being among the immunized. The third shot, given seven months after the second, further increases one's chance of being safe and it prolongs the term of safety, perhaps for years.

During the 1956 vaccine manufacturers brought supply up to meet demand. The 100,000,000th cubic centimeter of Salk vaccine was released by the U. S. Public Health Service in Washington in mid-September. There are no more priorities on use of commercial vaccine. It is available for all who want it.

## PRACTICE SAFETY WITH PESTICIDES

By J. N. Roney  
Extension Entomologist  
University of Arizona  
Agricultural Extension Service

**P**ESTICIDES for control of insects and other pests of the home sometimes cause trouble by people not reading the label or not storing the materials correctly.

Manufacturers of pesticides and agriculture experimental researchers spend millions of dollars on investigations to properly prepare the correct data for the labels. The recommended dilution and timing of the application of the pesticide is a matter that requires many hours of specific study. This information on the label then may save a life if the user will read it.

Industry through the National Agricultural Chemicals Association has come up with recommendations that are very simple and every householder should keep these in mind.

1. Always read the label noting the specific warnings and cautions on all pesticides before they are used each time.

2. It is absolutely necessary that each pesti-

cide should be stored out of the reach of children, pets and irresponsible persons.

3. Always keep the pesticide material in the original containers.

4. Never give a neighbor or anyone a portion of a pesticide unless it is properly labeled.

5. Always store the pesticide in a safe, separate room, cabinet or closet or on a high shelf and where it is not exposed to excessive sun, heat or cold.

6. Never store pesticide where food or feed stuffs are stored or handled.

7. When using on vegetable plants endeavor to apply correct amount. Never leave a heavy residue on plants you may eat. If you do, be sure to wash thoroughly; follow directions on label.

8. Always wash hands and face after using a spray or dust material.

9. It is not wise to smoke while spraying or dusting.

10. Never spill pesticide on the skin or clothing.

11. If you do spill pesticide on skin wash off at once with soap and water.

12. Never inhale dusts or sprays.

13. When using most pesticides, especially phosphates, change clothes after using and do not wear again until they are washed.

14. When using pesticides around pets or livestock quarters cover food and water containers.

15. If fish ponds are around, be careful not to let the pesticide drift over the water.

16. In cases where weed killers like 2, 4-D and 2, 4, 5-T, are used, use separate equipment for these materials. Never use a pesticide in a container where any of the above materials have been used.

17. Whenever pesticide containers become empty be sure to dispose of them so they are not a hazard to humans, animals, or valuable plants.

18. In case of accidental poisoning or illness after using a pesticide, call a physician or get the patient to a hospital at once. Many insecticide companies furnish explicit directions for antidotes. If you use any of the phosphates, it is wise to get these precautions. Malathion is the only phosphate pesticide that does not require very careful precautions when using.

Pesticides are very useful for control of the household pests as well as the control of in-

sects on the plants around the home. Some pesticides are very poisonous to warm blooded animals. Tests have been made on how much to use and how to use. This information may be secured from the County Agricultural Agent in the form of bulletins or circulars for the asking. There is no charge. Many times the manufacturer issues recommendations. Sometimes these are written for the entire United States, therefore, you should get local recommendations from your County Agricultural Agent. There is one in each County in Arizona. He may be listed under the Agricultural Extension Service of the University of Arizona or just the County Agricultural Agent of your county.

### BLUE SHIELD ACTS TO MEET NEW CHALLENGES

**T**EN YEARS ago 45 struggling local Blue Shield Plans had a combined enrollment of less than 2 million people. Today, 73 Blue Shield Plans cover some 38 million; and if their present rate of growth is maintained, these Plans will pass the 40 million mark in enrollment during 1957.

Several factors have conspired in recent years to alter and complicate the basic problems of Blue Shield enrollment: For one thing, most of the windfall apples have fallen off the tree, and enrollment men are having to climb ever higher in the tree to fill their baskets. Most local "blue chip" industrial groups have long since been enrolled by Blue Shield or some other agency, and the remaining local prospects are predominantly small groups, the self employed and rural dwellers.

Another vital new factor has been introduced by the tremendous growth of new industrial giants resulting from corporate mergers, and the concomitant tendency of labor unions to negotiate welfare benefits on a national scale. These big corporations and unions are demanding nation-wide hospital and medical care programs, offering at least the same scope of benefits for their workers in all parts of the country.

Blue Shield is an association of strictly autonomous local Plans, having similar purposes, but offering a considerable variety of specific benefits. The Constitution of Blue Shield Medical Plans recognizes that "state and local medical care plans should be autonomous in their opera-

tions so that the needs, facilities, resources and practices of their respective areas can be given due consideration, but that the health, and welfare of the public is advanced by the coordination . . . of methods, coverages, operations and actuarial data."

The Plans have sought, by voluntary agreement, to coordinate their efforts and to develop a basic program which each local Plan may offer the members of inter-Plan groups within their local Plan areas.

Without sacrificing an iota of local independence, more than three-fourths of the Plans have recently reached agreement on a standard scope of Blue Shield benefits, all or any of which each Plan will make available to any group of subscribers desiring this pattern of benefits. Nearly all the other Plans have promised to "go along" in the near future.

While this degree of coordination of benefits (in terms of covered services) has been found necessary to meet Blue Shield's enrollment challenge, each Plan will still make payments to physicians according to its locally negotiated schedules, and will calculate its own subscription rates.

This significant achievement of Blue Shield shows its ability to meet new conditions and proves the capacity of medicine's voluntary prepayment movement to solve whatever problems it may encounter.

### THE ARIZONA MEDICAL ASSOCIATION, INC.

826 Security Building  
Phoenix, Arizona

#### LOCATION OPPORTUNITIES

**ASHFORK** — Pop. 700 — North centrally located — Railroad center — Contact the Women's Club, Ashfork, Arizona.

**BENSON** — Excellent opportunity for GP — This David-Benson trade area has about 5,000 population with only one doctor available. Contact Mrs. Thomas Allen, Secretary, Benson Business Association, Benson, Arizona.

**CAMP-VERDE** — Located in the heart of a large farming and ranching area on the Verde River. Approximately 100 miles north of Phoenix. Badly in need of a medical doctor. Contact Ivy N. Moser, R. N., Camp Verde, Arizona.

**DAVIS-MONTHAN AIR FORCE BASE** — Located on outskirts of Tucson — In need of



a. General Medical and Surgical officer part time, \$7,465.00 per year. Application should be made to the Civilian Personnel Office at Davis-Monthan.

**DOUGLAS** — Pop. 16,000 — On the Mexican border in the southeast section of Arizona. Opportunity for associate or independent practice in OALR with doctor who is doing only ophthalmology. Good opportunity here in the field of otorhino-laryngology. Contact James S. Walsh, M.D., 631 Ninth Street, Douglas, Arizona.

**FLAGSTAFF** — Pop. 17,000 — Largest city in the north central Arizona trading area. This community needs the following: one radiologist, one internist, one pediatrician and one or more general practitioners. A general surgeon could also do well since there is only one here. Contact Morris M. Zack, M.D., 411 Birch Street, Flagstaff, Arizona.

**GILA BEND** — Pop. 2,500 — 80 miles west of Phoenix — Nearest town to the Painted Rock Dam Project — Good opportunity for general practitioner. Cattle, cotton and general farming. Office and equipment available. \$150 monthly income from Board of Supervisors. Contact Mrs. J. F. Allison, Box 485, Gila Bend, Arizona.

**LAS CRUCES, NEW MEXICO** — In South Central part of State and not too distant from El Paso, Texas. Population is approximately 22,000, boasts State College and White Sands proving grounds. General Hospital, 85 beds, fully accredited and staffed by fourteen (14) doctors. Need Urologist, Anesthesiologist and Obstetrician-Gynecologist. For full details write: A. M. Babey, M.D., President of the Staff, 250 West Court Street, Las Cruces, New Mexico.

**MORENCI** — Mining community located near New Mexico-Arizona border. Has vacancy at hospital for GP. Contact Carl H. Gans, M.D., Morenci Hospital, Morenci, Arizona.

**PAYSON** — Pop. 1,800 — Have completed and equipped a new clinic. Are badly in need of a medical doctor and the closest medical facilities are 80 miles away. For further information contact Mr. Walter Surret, President, Payson Clinic, Payson, Arizona.

**TUCSON** — The V.A. Hospital has two vacancies at the present time — one if for an internist on the Medical Service and the other is for either a general or thoracic surgeon on the Surgical Service. State license is necessary, but not necessarily an Arizona license.

Contact S. Netzer, M.D., Director, Professional Service, V. A. Hospital, Tucson, Arizona.

**TUCSON** — Opening for a board certified or board eligible Orthopedist to form and head an Orthopedic Department in the Tucson Clinic. Must have had good training in pediatric orthopedics as well as acute trauma and reconstructive work. Are looking for a younger man; however, are willing to consider any well-trained physician regardless of age. If interested, contact D. J. Heim, M.D., The Tucson Clinic, 116 North Tucson Boulevard, Tucson, Arizona.

**YOUNGSTOWN** — Pop. 130 — Located 16 miles from Phoenix, 4 miles from Peoria, 1½ miles from El Mirage, 1 mile from Surprise, each a potential field of practice. Most residents are 60 years of age or older and are in need of medical care. Office space is currently provided at no rental. A medical center is being planned. Interested doctors may contact Mr. Sid Lambert, Box 61, Marionette, Arizona.

**YUMA** — Pop. 15,000 — Situated in the Southwest corner of the State on the Colorado River — In need of a country physician. This is an ideal set-up for a retired or semi-retired doctor. The doctor could devote all of his time to the job or have a private practice in addition. If interested, call Mr. Robert Odom, collect, at SUset 3-7843 as soon as possible.

**FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:** Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Arizona; Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Arizona; Ira E. Harris, M.D., Miami Inspiration Hospital, Miami, Arizona; Charles B. Huestis, M.D., Box 928, Hayden, Arizona; Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Arizona; H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Arizona; and John Edmonds, M.D., Kennicott Copper Corporation Hospital, Ray, Arizona.

## MEDICAL EDUCATION WEEK

April 21-27, 1957

**T**HE IMPRESSIVE story of the accomplishments of U. S. medical schools will be told to the nation during the second annual observance of Medical Education Week, April 21-27.

The purpose of the observance is to focus the attention of the American people on the national importance and indispensability of

medical education. A well-organized program of public information will bring about greater friendship and support for the medical schools by creating a better understanding of their aims, problems, achievements, and public services.

President Eisenhower, in his personal endorsement of this observance, said, "While the benefits of health and medical education are daily with us, it is fitting to devote a special week to the consideration of the wider training of physicians. Each American has a personal stake in our country's medical schools. The schools which train the physicians required by our growing population are a vital resource for the health of our people and the strength of the Nation."

Specific aims of Medical Education Week, if pursued effectively, will demand the participation of a large portion of our members. These are the goals:

1. To portray the key role that medical education plays in the promotion and maintenance of the nation's health and security, and make the public aware that the nation's 82 medical schools are the foundation of our entire health and medical structure.
2. To explain how the medical schools are striving to meet the demand for larger numbers of physicians and, at the same time, to maintain the high standards of training that have come to characterize American medical education.
3. To call attention to the steady progress in the medical sciences, showing what this means in terms of longer life, better health and greater freedom from disease and disability.
4. To point out the wide range of activities — teaching, research, service and leadership — carried on by the modern medical school in addition to its job of training new doctors.
5. To make clear the extent and nature of the new challenges to the profession, some growing out of our constantly expanding fund of medical knowledge and some resulting from the mounting complexity of our civilization.
6. To point out some of the steps being taken constantly to push back the horizons of the medical sciences and to realize the full potential of the nation's health resources.

While medical societies and medical schools throughout the country build community programs around these objectives, the national

sponsors — the AMA and the Woman's Auxiliary, the Association of American Medical Colleges, the Student AMA, the American Medical Education Foundation, and the National Fund for Medical Education — are enlisting the help of newspaper syndicates, radio and television networks, popular and professional publications, civic groups, industry, and commerce in a broad program of national publicity and promotion.

## CARDIAC MONITOR

By Seymour Fisher, M.D.

**T**HE RISK of sudden death at surgery has been reduced through the development of a new instrument by scientists and doctors at the Hines, Ill., Veterans Administration Hospital. Called a "Cardiac Monitor," the transistorized device permits continuous and instantaneous monitoring of the heartbeat during surgery and for use during non-surgical emergencies. The meter warns the doctor that the heart is not working properly and that remedial steps are indicated.

Standard electrocardiograph electrodes are strapped on the forearms of the patient. These pick up the cardiac impulse and feed it into the machine. This impulse is amplified by the transistor circuit and indicated on a meter.

Controls consist of amplitude and fidelity knobs, a phone jack is provided should it be desirable to feed the heartbeat into a recording device or headphones.

The use of the transistors and small batteries makes the unit portable. It is housed in a 6 x 5 x 4 inch aluminum case that is equipped with a carrying handle. The total weight is 3 pounds. The power supply consists of four standard-sized flashlight batteries.

The monitor has been successfully tested at Hines. It has provided an immediate diagnosis of irregular heart action and may anticipate stoppage of the heart. It has even been able to provide monitoring of the heart rate during profound shock when the patient was clinically pulseless.

The cardiac monitor may be especially useful during cases of extreme shock as it provides accurate information that the heart is still functioning even though blood pressure and pulse may not be detectable. This should prevent unnecessary opening of the chest for cardiac massage. Instead, the doctor can initiate other

measures to return the blood pressure and circulation to normal without loss of valuable time in trying to assure the correct diagnosis.

Nurses, technicians, and even non-medical rescue personnel can operate the monitor readily because of its simple design and mechanism.

While the monitor was developed to give an instant picture of the heartbeat as an aid to the surgeons and anesthesiologists in a large general hospital, it might be of even greater value in the small hospital or for use during dental anesthesia, when a qualified anesthesiologist is less likely to be available.

The device was designed and developed on the radioisotope, medical and surgical services of the Hines, Ill., VA Hospital by Theodore Fields, M.S., Dr. Ervin Kaplan, Dr. Bernard Abrams, Dr. Robert Simpson, Dr. Archer Gordon, and Joseph Kenski, E.T.

### FREE CARDIAC SURGERY PROGRAM

NATIONAL Jewish Hospital at Denver is expanding its cardio-vascular program. It will consider applications for admission in behalf of patients suffering from cardio-vascular defects amenable to surgical intervention, including mitral and aortic stenosis, congenital cardiac anomalies, etc. Definitive diagnosis is not necessary prior to admission, inasmuch as the hospital has a completely equipped cardio-pulmonary physiology laboratory for this purpose. Patients are accepted without respect to race, religion, or national origin, and without charge. Only those unable to pay for private care are eligible. Periodic reports are made routinely to the referring physician and the patient is directed to report to him after discharge. Inquiries should be sent to Medical Director, National Jewish Hospital, Denver 6, Colorado.

### American Cancer Society Fellowships In Biometry and Epidemiology 1957-58

PREDOCTORAL fellowships: Applicants must have the B.A. or B.S. degree, and are expected to enter the Graduate School as candidates for the Ph.D. degree. They will receive training in one or more fields of biology as well as statistics. Fellowships are for three years; stipends, \$2,000 per year. Additional funds may be available depending on need.

Postdoctoral fellowships: Applicants must

have either an M.D., a Ph.D., or an Sc.D. These fellowships are for younger investigators, or for more mature men and women who want to extend their fields of competence. In addition to carrying out their own research, fellows will be given training in biometry, biostatistics, and other selected subjects. Fellowships are for one year, but may be renewed for two more. Stipends begin at \$4,000, and increase, depending on individual circumstances.

For further information, write to Professor E. Cuyler Hammond, Director of Graduate Studies in Biometry, 30 Hillhouse Avenue, Yale University, New Haven, Connecticut. Application blanks for predoctoral fellowships may be obtained from the Director of Admissions, Graduate School, Yale University, New Haven, Connecticut. All applications for both types of fellowships should be submitted as early as possible in 1957.

### FELLOWSHIPS IN ALLERGY

THE BOARD OF TRUSTEES OF THE AMERICAN FOUNDATION FOR ALLERGIC DISEASES announces the availability of three Fellowships in Research and Clinical Allergy for a period of two years each, carrying a stipend of \$4,500 for the first year, \$4,750 for the second, and a total of \$750 for laboratory and travel expenses during the two-year period. The funds for these fellowships have been made available by Mr. John D. Rockefeller, Jr., in a grant to the Foundation.

It is the hope of the Foundation that the recipients will be stimulated to enter the field of research allergy and will be equipped to teach others. Unlike the usual procedure, the Foundation has established single fellowships with three investigators eminently qualified to teach the principles and techniques of scientific method in this field and in institutions where adequate clinical facilities exist. Applicants should apply directly to one of the following investigators who will make the final selection:

Dr. Frederick G. Germuth, Jr.,  
Associate Professor of Pathology,  
The Johns Hopkins University Medical School,  
Baltimore 5, Maryland.

or  
Dr. Colin M. MacLeod,  
Professor of Research Medicine,  
University of Pennsylvania,



820 Maloney Clinic,  
36th and Spruce Streets,  
Philadelphia 4, Pennsylvania.

or

Dr. Herman N. Eisen,  
Professor of Medicine, (Dermatology)  
Washington University School of Medicine,  
Saint Louis, Missouri.

Candidates must be graduates of approved medical schools and must have completed the graduate training required as a preliminary to certification by the Boards of Internal Medicine or Pediatrics; they are to divide their time between research and clinical training, and in the second year 10 or 15 per cent of a candidate's time might be devoted to teaching.

The respective Institutions are undertaking to have this training credited toward the Sub-specialty in Allergy by the Board of Internal Medicine and the Board of Pediatrics.

Applications should be received by May 10, 1957.

Notification of the action taken on these applications will be sent to the candidate by June 10th of this year.

### MEETING OF RADIOLOGICAL SOCIETY OF NORTH AMERICA Chicago, December 2 to 7, 1956

By R. Lee Foster, M.D.

#### PANEL DISCUSSION OF FUNDAMENTAL PROBLEMS IN RADIATION THERAPY

This panel was presided over by Dr. J. W. J. Carpenter as moderator and members of the panel were Drs. Clifford L. Ash of Toronto, Ontario, Ralph Caulk of Washington, D. C., Vincent P. Collins of Houston, Texas, and Morton M. Kligerman of New York City. Eight radiation problems were presented to the panelists for discussion, some of which I will mention with some of the points which were brought out.

1. WILM'S TUMOR. This discussion precipitated the old controversy regarding surgery and irradiation or a combination. Controversy still exists, but there is at least some tendency to agreement that in bulky lesions that pre-operative irradiation to reduce the bulk and allow for more meticulous surgery was in order and preferable. Following surgery postoperative irradiation to the tumor bed pushing this to tolerance to kill dissemination is recommended.

2. BENIGN SQUAMOUS PAPILLOMAS OF THE BRONCHI. This relatively rare condition was brought before the panel with report of a case which developed after four years industrial exposure to noxious fumes. There was a widespread dissemination of these lesions throughout the bronchial tree and on both sides interfering seriously with pulmonary aeration. It was conceded that surgery had no place in the treatment of this wide dissemination, and the consensus was that x-ray should be used with rather high dosage, probably up to 3000 or 4000 roentgens in four weeks.

3. CARCINOMA OF THE BREAST. Two different problems along this line were discussed represented by two cases. There was much disagreement, both as to the relative merits of surgery and radiation and to the type of surgery or radiation used in either case. No ironclad conclusions were reached. It was brought out that the value of oophorectomy in these cases is not firmly established, nor can it be definitely denied by the evidence now at hand. If radiation is given, the ovaries should receive a tissue dose of 1800 roentgens in five days. One case developed a myxedema after irradiation which it is assumed is coincidental since no one else had experienced such a complication after irradiation. At any rate thyroid therapy caused a regression of numerous metastases which, however, recurred at a later date. Steroid therapy was discussed and should probably be deferred until definitely needed for its palliative effect.

4. HEMANGIOMAS. These are treated in a variety of ways. If radiation is used very low doses at infrequent intervals are recommended. There were several vociferous opinions that these should not be treated at all as 95 to 96 per cent of them are said to regress in five years even without treatment. This opinion was upheld in a class on roentgen therapy in childhood conducted by Dr. M. H. Wittenborg of Boston, Mass. who maintained that treatment should be avoided if at all possible, and stated that any type of trauma, whether it be extreme heat, extreme cold, bruising, pricking or anything else would cause these lesions to regress sooner.

5. CARCINOMA OF THE TONGUE. Discussion of this condition was highlighted by the consideration of prophylactic neck dissection which proved to be quite controversial but with



the majority of the discussants being against a purely prophylactic neck dissection. The statement was made that, "it removes the nodes but not the disease."

In a film interpretation session presided over by Dr. Merrill C. Sosman of Boston, the following men took part. Drs. Lawrence L. Robbins, of Boston, Mass., John A. Evans, New York; Cesare Gianturco of Urbana, Illinois; Arthur Present of Tucson, Arizona; and David M. Gould of Little Rock, Arkansas. Two or three observations brought out in this session deserve mentioning. It was pointed out in trying to diagnose a lipoid pneumonia that one should collect the first sputum of the morning so as to avoid contamination with cream or other fatty foods, and do a Sudan 3 stain. If intracellular fat is seen, the diagnosis is made.

In discrete pulmonary lesions of the so-called "coin" type, temporizing is discouraged and exploratory surgery encouraged. Statement was made that, "A period of observation is the period of lost opportunity."

A panel discussion of the practical clinical use of radio-isotopes was presided over by Dr. Hymer L. Friedell of Cleveland, Ohio with the panelists being Drs. Rulon Rawson, Kenneth E. Corrigan, John P. Storaasli, from Portsmouth, Rhode Island; Robert Robbins, Philadelphia, Penn.; Vincent Collins, Houston, Texas; and Dwight E. Clark of Chicago, Illinois. A discussion of the diagnosis and treatment of hyperthyroidism by Iodine 131 was discussed at length. It was conceded that the BMB determination is still a very useful procedure, but must be carefully done. Radioactive iodine uptake studies are helpful but are also subject to error. For example, a 10 per cent natural error in uptake studies is expected, and various conditions exclusive of hyperthyroidism may affect the uptake. Patients with edema may show a very low uptake, even enough to suggest myxedema, even though the patient may have hyperthyroidism. Protein bound iodine content of the blood is good, but is also subject to many pitfalls. High iodine intake either through food or medication interferes with the test. A myelogram may invalidate blood iodine studies on that particular patient forever. Anti-thyroid medication also invalidates the test.

In treatment it was generally concluded that patients below forty should be treated by surgery and not by radioactive iodine for two

outstanding reasons. 1. Because the carcinogenic potential of radioactive iodine has not yet been determined and, 2. it is desirable to avoid any excessive dose to the gonads during the reproductive period. In treatment with radioactive iodine about 15 per cent of the patients develop hypothyroidism.

In treating carcinoma of the thyroid and carcinomatous metastases, a thyroid blocking agent may be used for sometime previously to affect an ultimate increase uptake of the radioactive iodine.

In solitary thyroid nodules, which are demonstrated as non-functioning nodules, by the lack of iodine uptake, it is imperative that they be surgically removed. A complete lobectomy should be done, which should be adequate in case it is carcinomatous and no metastases are identified.

Ablation of the thyroid in intractable cases of angina pectoris was discussed. This was considered as proper and good treatment by the majority of the panelists who remarked that this is the one and only use of radioactive isotopes in medicine where there is no competing modality which might be used as an alternative. One discussant felt the patient should be treated with anti-thyroid therapy for four to six weeks previous to the ablation theoretically to wash out the thyroid hormone and to prevent its sudden release into the blood with destruction of the gland. Dr. Rawson, however, says the increased PBI found after destruction of the gland is all due to thyroglobulin and that this does not produce a thyrotoxicosis. He considered the anti-thyroid therapy as superfluous.

**POLYCYTHEMIA VERA.** Treatment here can be either radioactive phosphorus or whole body irradiation. Dr. Collins prefers whole body irradiation because of better dosage control. He gives weekly treatments of 25 roentgens at distances of 100 to 300 cm. to a total of 100 roentgens. Three other discussants prefer radioactive phosphorus given in a dosage of 5 millicuries for the average man with a range varying according to weight of a minimum of 3 to a maximum of 10 millicuries. All agree that these should probably be preceded by phlebotomy to bring down the hematocrit to something around normal and to minimize the imminent danger of thromboses. Anticoagulants might be considered but the combined experience of the

panel with this was small.

#### THERAPY OF PITUITARY ADENOMATA.

Eosinophilic type only was discussed by Dr. Donn G. Mosser of Minneapolis, Minnesota. Forty cases at the Univ. of Minnesota received dosages of 1800 to 3000 r in three to four weeks. Seventy per cent were improved, 17½ per cent unchanged; 7½ per cent became worse, and 5 per cent were lost to follow-up. Impression obtained by the analysis of this case series was that lower voltages are just as effective as super voltage in therapy of these lesions, and relatively small doses have been effective. Surgery is used only when x-ray fails; and cystic tumors tend to be very radiation resistant and do not respond to the x-ray.

**RADIATION TO LENS INCIDENT TO TREATMENT OF TUMORS OF THE EYE AND ADJACENT STRUCTURES.** Dr. George E. Merriam, Jr. of New York City indicated that in dosages of 400 roentgens to the lens very few patients developed cataracts. With dosages of 700 roentgens to the lens 50 per cent of the patients developed cataracts, and with dosages of 1100 roentgens to the lens, all patients developed cataracts. Measurements of the dosages received by the lens were made in treatment of various conditions such as carcinoma of the antrum, carcinoma of the eyelids and carcinoma of the nasopharynx. The necessity of beam direction to avoid the lens and adequate shielding wherever possible was stressed.

**USE OF ELECTRON BEAMS IN INDUSTRIAL PROCESSES.** This very interesting discussion by E. Dale Trout who is a Doctor of Science, Milwaukee, Wisconsin, pointed out that food sterilization required beam powers far beyond that used in ordinary medical procedures, and that this rendered sterilization impractical now in large quantities of food-stuffs. He estimated, however, that within ten years dairy products would be sterilized by this method, and within five years beer and certain food products would be sterilized by this method, and within one year potatoes, small surgical supplies, and other small items would be so sterilized. In fact, potatoes are now being treated to prevent sprouting. A small black ampule of eye ointment is being marketed sterilized, and packaged polyethylene tubing for medical use are being sterilized by this method. The army is pursuing experimental studies on food sterilization and is now build-

ing a 7½ million dollar plant near Stockton, California, as a pilot plant in its food sterilization program.

**MAXIMAL PERMISSIBLE IRRADIATION DOSE.** Considerable interest and controversy in this subject has been stirred up by the recent newspaper publicity given to the report of the National Academy of Science as to the unfavorable effects of radiation. This has apparently ignored the efforts of the radiological profession along this line for the past 50 years. Radiologists are and always have been conscious of the hazards of over-exposure and have been constantly on guard to prevent it. While the possibility of increased exposure to the general population from sources other than x-ray may make it necessary to give more attention to the exposure of the total population, this will not seriously affect the exposure from medical procedures, and the advantages of the information obtained and the benefits obtained by x-ray treatment will far outweigh any hazards of over-exposure in this group of people. Some revision of maximum permissible exposures may need to be made for the protection of the general population which heretofore had no possible source of over-exposure, and needed no restrictions. More will be heard of this later.

**RADIOTHERAPY OF BRONCHOGENIC CARCINOMA.** James E. Lofstrom, M.D., of Detroit, Michigan discussed treatment of bronchogenic carcinoma by irradiation, contrasting results obtained with conventional 250 kilovolt therapy, and super voltage or Cobalt 60 therapy. In spite of careful treatment planning and dosage delivery the super voltage and Cobalt 60 therapy did not give any appreciable increase in favorable results over the conventional 250 kilovolt therapy. Results in either case were very poor with only nine patients out of one hundred patients treated are now living, with palliative effects being obtained only in 41 per cent of the patients and with the average survival after treatment being only five months. The outlook in this particular condition is indeed grim at the present moment.

**SMALL PNEUMOENCEPHALOGRAMS AS A SCREENING PROCEDURE IN CONVULSIVE DISORDERS.** Lewis E. Etter of Warrendale, Pennsylvania gave their experience with examination of 200 veterans in the 21 to 40 year age groups by this method. Twenty cc.

of air was injected into the spinal canal after removal of 20 cc. of spinal fluid, and ten routine x-ray exposures made. Radiation exposure was kept down by using a high kilovoltage technic, 120 kilovolts with a filtration of 3 mm. of aluminum and fast detail screens. The procedure produced much less discomfort and side effects than the conventional procedure in which 100 cc. or more of air was injected and detailed comparison of their diagnostic accuracy by this method revealed a correlation within a very small percentage of positive diagnoses and of diagnostic errors. Dr. Etter claims it is not a complicated procedure, is relatively benign, and is within the capabilities of any radiologist for its performance.

**INTRACRANIAL CYTOMEGALIC INCLUSION DISEASE.** This rather rare disease was discussed by Charles R. Perryman, M.D. of Pittsburgh, Penn. It is a virus disease probably an encephalomyelitis, and is found in very young infants and is believed to affect many of these during their intra-uterine existence. Virus producing this disease may be found in normal salivary glands. It may be confused with conditions concerned with RH incompatibilities and is often confused with toxoplasmosis, since one of the evidences of this disease is calcification within ependymal lining of the ventricular system of the brain, and this can frequently be seen in routine radiographs of the skull. When any intracranial calcifications are seen in the newborn infant or in a child under two years of age, this disease should be added to the differential diagnosis. By way of discussion and speculation it is suggested that routine radiographs of the skulls should be made of all stillborn babies in addition to the regular autopsy, if permitted. An additional aid to diagnosis is the finding of basophilic inclusion bodies in the cells of body tissues and in large cells which may be found in the centrifuged sediment of urine.

**MENINGIOMAS.** Meningiomas of the tuberculum sellae were discussed by Dr. Philip J. Hodes of Philadelphia, Penn., and radiographic evidences of their presence were demonstrated by lantern slides. The ossification or hyperostosis or both may occur in the region of the tuberculum sellae. Pneumoencephalography is useful in revealing the tumor mass many times and cerebral angiography is also of considerable help. Meningiomas of the posterior fossa were

discussed by Theodore A. Tristan, M.D. of Philadelphia, Penn. and x-ray evidences of their presence were pointed out. It is important that these be recognized and diagnosed early as surgery may then be curative.

**THE OBSTRUCTED URETEROPELVIC JUNCTION.** Robert Linch, Jr., M.D. of Louisville, Ky., and his associates studied a number of cases which showed radiographic narrowing in the ureteropelvic junction area or other filling defects in this area, and with varying degrees of pyelectasis above. By removing portions of the ureteropelvic junction surgically and sectioning these longitudinally for staining and microscopic study, he found that these cases almost without exception had congenital valve-like structures in the area which closed when subjected to hydraulic pressure from the direction of the kidney pelvis, but which opened to allow retrograde passage of fluid or the ureteral catheter of the urologist. These valves were so delicate in their structure that even gross examination and calibration of this area when the kidney pelvis was opened surgically was misleading, and the valves could not be detected by this method. Their obstructive action could be demonstrated by puncturing the kidney pelvis with a needle and injecting saline into the kidney pelvis exerting a hydraulic pressure in the downward direction in the ureter which would in many cases close these congenital valves and cause distention of the renal pelvis. Surgical correction of this type of intermittent obstruction resulted in improvement or return to normal in a number of cases of pyelectasia.

**INTRAVENOUS CHOLANGIOGRAPHIC DIAGNOSIS OF PARTIAL BILIARY DUCT OBSTRUCTION.** Dr. Robert E. Wise of Boston, Mass. presented a study of this condition including their experience with over 750 injections of Cholegrafen. They found a number of patients who have had cholecystectomies or who had pathological cholecystectomy and who still complained of gallbladder symptoms, who presented evidence by this diagnostic procedure of partial obstruction of the common duct. This was produced either by calculi, polyp, fibrosis of the sphincter of Oddi or neoplasm in the lower portion of the common duct or at the sphincter. The majority of the cases were caused by fibrosis of the sphincter of Oddi and were treated by transduodenal sphincterotomy.

In the diagnosis of this condition by the



Cholografin technic the time density relationship was found to be important. In unobstructed cases, the best visualization of the common duct was obtained at about forty-five minutes after injection of the Cholografin and dropped off rapidly following that time. In obstructed cases, however, the build-up of density in the common duct was gradual up to about 90 minutes after injection where a maximum density was obtained and this density instead of falling off or diminishing thereafter remained at about the same density for sometimes several hours or more. This time density relationship should be kept in mind in the interpretation of intravenous cholangiograms.

**INTRAVENOUS PYLEOGRAMS FOR INFANTS AND CHILDREN.** Dr. Raymond R. Lanier of Denver, Colorado discussed this subject and emphasized that children were usually living with a very easily upset acid-base balance and nutritional imbalance, and that often any upset to the gastrointestinal tract or to the water balance of the body may upset their physiology so seriously as to have a fatal outcome. Consequently, he recommends that no catharsis, enemas, fasting, or dehydration procedures be used in preparing children for intravenous pyelograms. There is practically no contraindication to intravenous pyelograms in children; not even high N.P.N.'s and infections are excepted. Also rarely do children ever exhibit any iodide sensitivities so that the dangers of injection of contrast medium are less than for adults.

Tubular reabsorption for concentration of urine is very poor and indeed non-existent in young children, and for this reason large doses of concentrated intravenous dye need to be used. Filming is begun early, usually as early as three minutes after injection of the contrast medium. Since gas in the intestinal tract is a problem, any means of distending the stomach with air is used to push down the intestinal gas and to uncover the kidneys. If the child does not swallow enough air with ordinary feeding, carbonated drinks are given.

Reactions to the intravenous injection of the dye are combatted first with the insertion of an airway, and this should be in every emergency kit. Oxygen then is given, and if there is vasomotor collapse, Neo-Synephrine or similar medication. Intravenous barbitrates should be kept handy for convulsive manifestations and

for genuine allergic reactions, one of the antihistamines as for example Benadryl should be used intravenously if necessary.

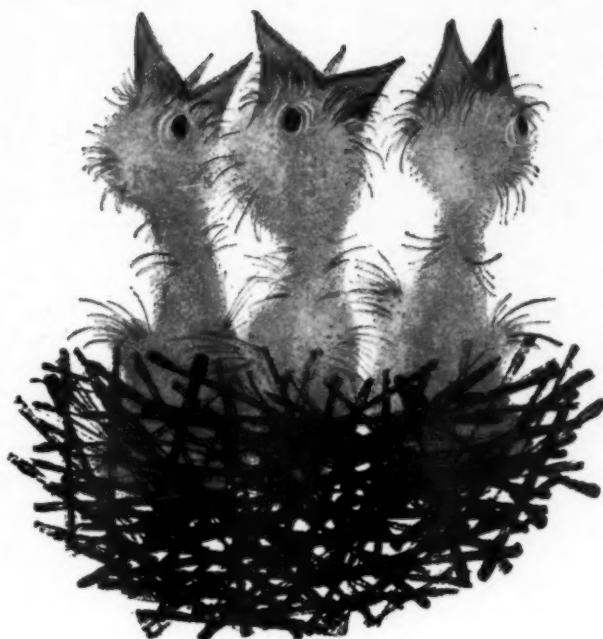
In this examination the lower urinary tract should not be neglected and voiding films are very often quite useful.

**MANAGEMENT OF THE PATIENT WITH ADVANCED CANCER.** Various aspects of the management of the patient with advanced cancer were discussed by various panel members in a symposium of this subject. Considerable emphasis was given to hormone therapy with as an example in postmenopausal women with cancers of the breast and bony metastases, treatment with estrogens frequently cause remission of the disease with recalcification of the metastases sometimes for considerable periods of time. Androgens are used perhaps as a second choice, and hypophysectomy has been found also very effective in causing regression of the metastases for considerable periods of time, and palliating pain which the patients have. In premenopausal women with metastases from cancer of the breast, castration is recommended as the first step if this has not already been done. Surgery versus radiation castration was discussed with no conclusive evidence of clear cut superiority of one over the other. Androgens or cortisone were also found useful, and if the patient has responded well with one remission to castration it is almost certain that hypophysectomy will also be successful.

**PULMONARY ALVEOLAR MICROLITHIASIS.** One of the more interesting of the scientific exhibits was an exhibit of films together with case histories of several cases of this rare disease. This is a disease which causes chemical changes in the alveoli with calcification of the linings of the alveolar walls. These patients may live well into adulthood, but usually die of a pulmonary insufficiency. In the x-ray films these calcifications within the alveoli can be seen, and this disease must be considered when widespread pulmonary calcifications of fine texture are seen. This must be considered in the differential diagnosis from silicosis, lipiodol residue in the alveoli, ameloidosis, and the many other things which can cause similar shadows.

**RAPID FILM PROCESSING.** One of the most interesting of the commercial exhibits was an exhibit by the Eastman-Kodak Company demonstrating an entirely new method of film processing. The exposed films are fed into a





## children are often this eager...

Because Rubraton tastes so good, most children actually look forward to taking it. What better way could there be for providing these essential nutrients?

Rubraton is indicated for combatting many common anemias and for correcting mild B complex deficiency states. It may also prove useful for promoting growth and stimulating appetite in poorly nourished children. (Not intended for treatment of pernicious anemia.)

**Dosage:** 1 or 2 teaspoonfuls t.i.d.

**Supply:** Bottles of 8 ounces and 1 pint.

1 teaspoonful (5 cc.) supplies:

Elemental Iron .....	38 mg.
(as ferric ammonium citrate and colloidal iron)	
Vitamin B <sub>12</sub> activity concentrate .....	4 mcg.
Thiamine mononitrate .....	1.0 mg.
Riboflavin .....	1.0 mg.
Niacinamide .....	5 mg.
Pantothenic acid (Panthenol) .....	1.5 mg.
Pyridoxine hydrochloride .....	0.5 mg.

Alcohol content: 12 per cent

# RUBRATON

SQUIBB IRON, B COMPLEX AND B<sub>12</sub> VITAMINS ELIXIR

"RUBRATON"® IS A SQUIBB TRADEMARK

SQUIBB



Squibb Quality—the Priceless Ingredient

slot at one end of this developing machine, no film hangers being necessary. The films are carried through the machine by being transported between rollers, these rollers transmitting them through developing solution, stop bath and fixing solution; thereafter through wash water and then between drying rolls which squeeze all of the surface solution and water off from the films and subject them to a blast of warm air so that the films come out flat and dry at the opposite end. The whole cycle takes a few seconds less than six minutes. It is not expected that this apparatus will immediately replace all of the conventional developing tanks in the country, since the present selling price is somewhere around \$25,000.

**ARTERIOGRAPHY.** In a symposium on the technics, clinical aspects, values, and complications of this procedure, the extremely valuable aid given in the diagnosis of certain conditions was well demonstrated. The complications, however, were sufficiently formidable and serious to render, in this commentator's opinion, this a procedure to be used with extreme care and in highly selected cases. It should be used only in cases where the information cannot be obtained otherwise, and where the correct diagnosis obtainable by this method has a good possibility of making available to the patient, definitive therapy for his benefit. Fortunately these severe complications are reported as rare, the occurrence being well under one per cent. These serious complications include renal damage apparently produced by direct toxic effect of the injected contrast medium, central nervous system injury particularly injuries of the spinal cord, resulting in partial or total paralysis, massive hematoma around the puncture site with all the attendant dangers of pressure from the hematoma or exsanguination of the patient, extra-aortic extravasation of the contrast medium, as well as other.

**COBALT 60 THERAPY.** A symposium as to the relative value of Cobalt 60 therapy and conventional 250 kilovolt therapy had as its participants Drs. Isadore Lampe, of Ann Arbor, Michigan; T. A. Watson, Saskatchewan, Canada; Juan A. Del Regato, of Colorado Springs, Colorado; James W. J. Carpenter, of Chicago, Illinois; and Franz J. Buschke of Seattle, Washington. Although it was pointed out that Cobalt therapy or supervoltage therapy had the ad-

vantage of less bone absorption allowing a treatment of tumors past bone with deliverance of a better dosage, and also that there is some skin sparing action with delivering of dosage deeper beneath the skin, nevertheless it was not without its problems, such as for example the increased exit dose in this type of therapy and its disadvantage when actual bone tumors needed to be treated. It was pointed out that the sensitivity of tissues to irradiation is impartial to the quality of the irradiation and a dosage delivered to a specific tissue by whatever method is just as effective, so long as the amount of irradiation absorbed is the same. This is to say, of course, that the 250 kilovolt therapy is not outmoded by any means, and apparently will not be replaced by supervoltage and Cobalt therapy. In tumors of bone the lower voltage is more advantageous since more of the irradiation is absorbed within the bone.

**CHEMOTHERAPEUTIC AGENTS USEFUL IN THE TREATMENT OF MALIGNANT DISEASE.** Dr. Clyde O. Brindley of Bethesda, Maryland discussed at length the use of various chemotherapeutic agents including Amethopterin, 6 Mercaptopurine, 6 Chloropurine, 6 Thioguanine, Azoserine, Demecolcin, Urethane, Prednisone, Cortisone, Testosterone, Halotestin, Nitrogen Mustard and others. Experimental statistics were quoted at some length, but there are at least two obvious conclusions concerning the use of these drugs. One, practically all of these drugs have toxic effects of varying degrees, most of these being quite severe and discomforting to the patient. Two, although remissions in various diseases treated may be obtained, these remissions are usually of relatively short duration and there is no change in the eventual outcome of the disease.

---

### Book Review

**NEW DIRECTIONS IN PSYCHOANALYSIS** edited by Melanie Klein, Paula Heimann, and Roger Money-Kyrle. 534 pages. (1955) Basic Books. \$7.50.

These 21 essays by an international group honor Melanie Klein and her pioneer research in Freudian theory. For the first time they present her viewpoints and research. The story of the origin and evolution of her "play technique" alone makes it worth while. Analytical physicians will find it both fascinating and practical.

Stacey's Medical Books, San Francisco

## CANCER SEMINAR

**D**R. JAMES D. Barger, of Phoenix, chairman of the Arizona Division Professional Educational Committee, reported to the board of the Division that this year's Seminar was the most successful in the five years they have held it in Arizona. No doubt this was due to the fact that the speakers were particularly outstanding in the Cancer field, and that the sessions were well planned, and most informative to those present.

A cocktail party sponsored by the Rocky Mountain Pharmacal Company was well received by all M.D.s present.

The total attendance of doctors and interns was two hundred forty-three (243) which is exactly the same number that attended the year before. Total registration this year was three hundred sixty-three (363). There were thirty out of state doctors attending this year. Every county in the state was represented except Mohave.

For the first time the event was covered nationally by the United Press and Associated Press reporters who were in attendance; also the Science editor of our own National Society and the Modern Medical magazine were personally represented. These news releases have certainly brought national attention to Arizona as some of our speakers, (particularly Dr. John Z. Bowers, Dr. Joseph W. Gale, Dr. Eugene P. Pendergrass, Dr. Hans G. Schlumberger) and our office have been swamped with mail.

The speakers were: John Z. Bowers, M.D.; David C. Dahlin, M.D.; Dominic A. DeSanto, M.D.; Joseph W. Gale, M.D.; L. Henry Garland, M.D.; Alfred Gellhorn, M.D.; J. Vernon Luck, M.D.; Joe Vincent Meigs, M.D.; Eugene Pendergrass, M.D.; Hans G. Schlumberger, M.D.; and David A. Wood, M.D.

Moderators for this year's event were: Willard V. Ergenbright, M.D., Orthopedic Surgeon; Dermot W. Melick, M.D., Thoracic Surgeon; Preston T. Brown, M.D., Gynecologist; Lorel A. Stapley, Jr., M.D., Pathologist; Darwin W. Neubauer, M.D., General Surgeon; Frederick J. Lesemann, Jr., M.D., Surgeon; W. Albert Brewer, M.D., General Surgeon; Arthur J. Present, M.D., Radiologist.



Dr. Wood, President of the American Cancer Society, presents the Division Charter to Dr. Bregman, President of the Arizona Division. The Arizona Division is one of the 12 Divisions to receive an unqualified rating, of the 60 divisions of the American Cancer Society.

The Seminar Committee for this year was co-chaired by Dr. Edward H. Bregman, president of the Arizona Division, and Dr. James D. Barger; other members of the committee were Dr. W. R. Manning, Dr. Dermont W. Melick, Mrs. Robert E. May and James R. Bunker. The board voted to hold the sixth annual Seminar in Tucson. Dr. Bregman appointed Dr. Darwin Neubauer chairman of the executive committee, Arizona Division to chair this event next year.

**EDITOR'S NOTE:** The Cancer Seminar as conducted these past five years by Drs. Bregman and Barger under the auspices of the Arizona Division, American Cancer Society, has developed into an excellent and educational program. These men are to be commended upon the excellent faculty they have assembled each year.

## AMA COUNCIL ON NATIONAL DEFENSE MEETS

**A** SPECIAL meeting of the Council on National Defense was held in Chicago on January 27th to consider a proposal by the Federal Civil Defense Administration for a plan of study and research to establish a program for the medical and health care of surviving non-

casualties, including the coincidental problem of public health and environmental sanitation that will be present in the event of enemy attack on this nation.

Dr. M. M. Van Sandt, Director, Medical Care Division, Health Office, FCDA, explained to the Council that prior planning assumptions, based upon less destructive weapons (A-bomb), focused attention to the development of plans for the management and care of large scale casualties. However, with the advent of increased weapon potentiality and the advanced methods of delivering nuclear bombs, it is essential that consideration be directed to the medical health requirements of the surviving non-casualty population. The extent of the problem is tremendous since large numbers of displaced persons will move into non-target areas, thereby overtaxing depleted medical and health facilities, supplies, and professional personnel. These conditions could last up to one year.

The Council has submitted a report to the AMA Board of Trustees on this subject which will be considered at its next meeting.

## *Future Meetings*

### **WORLD CONGRESS OF GASTROENTEROLOGY**

**T**HIS Congress is being sponsored by the International Society of Gastroenterology and the host organization in this country is the American Gastroenterological Association. The meeting is to be held in Washington D. C., May 25-31, 1958 at the Sheraton Park Hotel. All physicians interested in gastroenterology are cordially invited to attend. The Chairman is Dr. Harry L. Bockus and anyone desiring information regarding the program, housing, etc. may direct all correspondence to H. M. Bollard, as Secretary General.

The major subjects to be considered at the scientific session are as follows: Peptic Ulcer, Malabsorption and Sprue-like Syndromes, Nutrition and its effect on the Liver and Pancreas, Intestinal Infection and Infestation, Cancer of the Stomach.

## **NOTICE**

MEDICAL SOCIETY OF UNITED STATES AND MEXICO met March 16th and 17th at the San Alberto Hotel, Hermosillo, Mexico. Committee Meetings at 10:00 A.M. on the 16th. Exec. Com. Meeting at 2:00 P.M. on the 16th.

Mexican Chartering Meeting, Mazatlan, Sinaloa, Mexico, May 9, 10, 11th at Bel Mar Hotel.

(Editor's Note: This, as so many notices was received too late for adequate notification to our members. Every effort will be made to publicize forthcoming meetings. But efforts should be made to submit the information at least 60 days prior to the time of the meeting.)

## **CLINICAL HYPOXIA**

The 123rd and 124th monthly, intensive course in Clinical Hypoxia is coming up May 3-4 and June 7-8.

These courses are being presented monthly in New York City as well as in southern, mid-western and western cities by the National Resuscitation Society, Inc., 2 E. 63rd St., N. Y. 21, N. Y.



**He's An  
Investor**

**But no  
decisions  
to make...  
no details  
to handle.**

This man sleeps well. He doesn't toss in bed at night wondering whether to buy XYZ stock . . . whether he should sell PDQ . . . how to handle the warrants he just received . . . what to do about the rights lying on his desk. At night he sleeps peacefully. During the day he concentrates on his business affairs. He considered the risks and the advantages and invested in Mutual Fund Shares.

**Ed. Murray & Co.  
409 North Central Ave.**

**AL 4-0315**

**Phone**

**AL 2-9192**



**PROGRESS IN NEUROLOGY AND PSYCHIATRY**, Vol. 11 edited by E. A. Spiegel, M.D. 606 pages. (1956) Grune & Stratton. \$10.

This truly useful refresher provides the latest information in neurology, neurosurgery, psychiatry, and basic sciences, condensed with discrimination for practical use. You cannot read all the journals; this book is equivalent to a good selected digest, and at a much lower price.

Stacey's Medical Books, San Francisco

**THEIR MOTHERS' DAUGHTERS** by Edward A. Strecker, M.D., and Vincent T. Lathbury, M.D. 256 pages. (1956) Lippincott. \$3.75.

The world famous creator of the term "momism" as applied to boys now teams up to show how to cut the "unsevered umbilical cord" for girls, and what happens if you fail. Fathers, of course, are considered. This text-like *Their Mother's Sons*, will be a cussed and discussed best-seller that you should read if you practice any type of medicine, if you are a parent, if you deal with parents, if you do or don't deal with mothers or daughters!

Stacey's Medical Books, San Francisco

**THE HAPPY LIFE OF A DOCTOR** by Roger I. Lee, M.D. 278 pages. (1956) Little, Brown. \$4.

Witty, modest, and warmly personal, this book is an affectionate yet unvarnished glance at the medical life as one man has known and loved it through a wide span of years. Now past seventy and rounding out his fiftieth year of medical practice, Roger I. Lee had and has a career rich in accomplishment and in friendship. He has been president of the American Medical Association and of the American College of Physicians, Professor of Hygiene at Harvard, member of the Harvard Corporation, and founder of the Harvard School of Public Health. A confessed optimist he brings to the business of living a gusto and energy not often equaled.


Stacey's Medical Books, San Francisco

#### DRIVE-IN PRESCRIPTION WINDOW

#### PEOPLE'S DRUG STORE

111 E. Dunlap

WE 3-9152 - WI 3-9964



**BONAMINE**  
BRAND OF MEDICINE HYDROCHLORIDE

prevents nausea,  
vomiting and vertigo  
associated with  
vestibular disturbances

\*Trademark

#### ALCOHOLISM

A hospital equipped and staffed for the accommodation of those patients in whom over indulgence in alcoholic beverages has created a problem.

OPEN STAFF to members of the Arizona Medical Association.

POLLEN FREE REFRIGERATED AIR  
CONDITIONING FOR YEAR ROUND COMFORT

#### The Franklin Hospital

Hospital License No. 71  
Registered A.M.A.  
Member A.H.A.

367 No. 21st Avenue  
PHOENIX, ARIZONA

Phone - Day or Night - AL 3-4751

## PHOENIX *Clinical* CLUB

The Case History in this discussion is selected from the Case Records of the Massachusetts General Hospital, and reprinted from the New England Journal of Medicine. The discussant under Differential Diagnosis is a member of the staff of the Massachusetts General Hospital. The other discussants are members of the Phoenix Clinical Club.

### MASSACHUSETTS GENERAL HOSPITAL

#### PRESENTATION OF CASE 41302

**A** FIFTY-NINE-YEAR-OLD woman entered the hospital because of massive bleeding by rectum.

Six weeks before entry the patient began to pass bulky, black stools. For a month previously she had been taking a polyvitamin preparation including iron (1 pill per day). With the onset of the tarry stools she became slightly constipated and began to experience dyspnea and profuse sweating on exertion. Four days before admission she consulted a physician, who noted her pallor and found her hemoglobin to be low. On the morning of admission she noted marked borborygmus over the entire abdomen. Two hours later she passed several copious, wine-red, liquid stools.

There was no history of abdominal discomfort, nausea, vomiting, diarrhea, food intolerance or jaundice. The patient stated that she tended to bruise easily but had had not significant bleeding in the past. Intake of alcoholic beverages was denied. She had had a tubal insufflation because of sterility in the past.

Physical examination revealed a pale, well developed and well nourished woman who appeared very tense. Examination of the heart and lungs was negative. The abdomen was slightly distended and showed questionable fullness in the right lower quadrant. There was no masses or tenderness. Peristalsis was moderately increased. A finger specimen of stool was bloody and liquid.

The temperature was 99° F., the pulse 100, and the respirations 16. The blood pressure was 130 systolic, 70 diastolic.

Urinalysis was negative. Examination of the

blood revealed a hemoglobin of 8.2 gm. per 100 cc. and a white-cell count of 6500, with 88 per cent neutrophils. The red cells showed slight to moderate variation in size, slight polychromatophilia and slight to moderate achromia; occasional cells showed stippling. The platelets appeared normal. The prothrombin time was 12 seconds (normal, 13 seconds). The sodium was 138 milliequiv. and the carbon dioxide 29 milliequiv. per liter; the nonprotein nitrogen was 42 mg., the total protein 5 gm., and the bilirubin 0.2 mg. per 100 cc. Cephalin flocculation was + in twenty-four and forty-eight hours. A gastric aspiration yielded white, mucoid material, which contained no free acid and gave a negative guaiac test. Sigmoidoscopy showed negative bowel for a distance of 18 cm. Above this level the lumen was filled with port-wine colored, liquid stools.

The patient was repeatedly transfused. On the second hospital day a gastro-intestinal series revealed no abnormality in the esophagus, stomach or duodenum. A segment of ileum, 3 cm. in length and 60 to 90 cm. from the ileocecal valve, showed a fairly constant filling defect. This could not be dislodged despite repeated maneuvering. A barium-enema examination showed a small area of diverticulosis near the junction of the descending and sigmoid colon. Just distal to this was a rounded area overlying the sigmoid which was interpreted as being a possible diverticulum or polyp. Another small bowel series on the sixth hospital day failed to reveal a filling defect in the ileum. Stool specimens continued to give 4 plus guaiac reactions although the stools were now described as brown and putty like. On the ninth hospital day the hemoglobin was 13.2 gm. per 100 cc., and an operation was performed.

#### DR. J. M. GREER

The important or the positive things or the "high spots" in the proctol are:—

1. Intestinal bleeding (age and sex probably has little to do with the case).
2. Anemia, which is probably secondary to the loss of blood.
3. Dyspnoea, which is no doubt due to the anemia.

### PAST HISTORY

This is essentially negative.

### PHYSICAL EXAMINATION

Pale from bleeding, slightly distended abdomen. Rectal finger examination reveals liquid blood specimen. Sigmoidoscopic examination negative except for liquid from above.

**LABORATORY WORK** — Low Hemoglobin 8.2 gm — 54%; White cell count low, high relative neutrophils 88%. Some changes in the red cells. Prothrombin 12 seconds (normal 13) Sodium 138 (normal 133-136)  $\text{CO}_2$  29 Mill-equiv. (normal 26-32). NPN 42 mg. (normal 24-35) Total protein 5 gm. (6-7) Bilirubin 0.2 (normal 0.1 to 0.25). Cephalin flocculation was normal. Gastric aspiration, no blood, no free Hydrochloric acid. The Gastro-intestinal series was negative except for a filling defect 60 to 90 cm. (2-3 ft.) from the ileo-cecal valve and this defect was not found upon the second examination. There was also an area of diverticulosis at the upper sigmoid and a shadow that could be a diverticulum or polyp.

If we can determine where the intestinal bleeding came from we will no doubt have our diagnosis.

I think from our history, physical examination and laboratory work that we can rule out the upper gastro-intestinal tract and this leaves for our consideration the lower ileum and the colon.

It does not seem to me possible for so much bleeding to come from an area of sigmoid diverticulosis or even a polyp. However, I suppose it could be possible. However, I shall rule these areas out as a source of the bleeding.

One of the first things that attracts our attention to the area that could be a cause of the bleeding, in addition to the distended abdomen, is the defect in the lower ileum two or three feet from the ileo-cecal valve. Could this defect have been caused from an adherent blood clot at the mouth or area of a Meckel's Diverticulum? This defect was not present in the second examination six days later. I think that it is highly probable that an adherent blood clot could have caused the defect in the barium study.

Let us discuss for a minute. Meckel's Diverticulum.

Phil Thorek says it is helpful to discuss this condition as the Disease of Two's (2's). It is

found in 2% of all individuals; it favors males two to one (this patient was a female) it is 2 feet from the ileo-cecal valve; it is usually about 2 inches long and is confused with two surgical conditions, namely appendicitis and peptic ulcer: it may contain two types of ectopic tissue, namely gastric and pancreatic tissue and is associated with two complications: hemorrhage and perforation.

It would seem that clinically as well as from the laboratory work done in this case that we can rule out appendicitis and peptic ulcer.

Therefore, I shall present a diagnosis of intestinal hemorrhage from Meckel's Diverticulum and the operation that was performed was no doubt a laparotomy with general exploration and the removal of the diverticulum.

### DIFFERENTIAL DIAGNOSIS

Dr. Charles G. Mixer: This case is a problem of massive gastrointestinal bleeding of unknown origin. The bleeding apparently was chronic for about a month and then suddenly increased in amount. I think we might see the x-ray films.

Dr. Joseph Hanelin: The first examination was of the upper gastrointestinal tract and small bowel. There is reasonable assurance from that examination that there was no lesion in the esophagus, stomach and duodenum. A fingerlike defect is present in the ileum approximately 90 cm. from the ileocecal valve, which is about 3 by 1 cm. in size. It was also seen at fluoroscopy and some spot films were obtained of it. A day or two later a barium-enema examination showed several diverticula of the sigmoid; no polyp was seen. In an attempt to redemonstrate the small-bowel lesion, because such lesions are liable to misinterpretation, we repeated the small-bowel study. At that time no lesion was apparent. However, when the films of the second examination were reviewed, it seemed likely that the small-bowel loops in the area of suspected trouble had not been filled. We contemplated doing still another small-bowel examination, but operation was decided upon before further x-ray studies could be made.

Dr. Mixer: I should like to know exactly what this statement about the barium-enema examination means: "Just distal to this was a rounded area overlying the sigmoid, which was interpreted as being possibly a diverticulum or polyp."

Dr. Hanelin: Not infrequently, in the double-contrast examination and sometimes in the post-evacuation colon study, the circular form of a diverticulum will be seen that may simulate the appearance of a polyp.

Dr. Mixer: Would you say that this area noted in the small bowel was consistent with the x-ray picture of an intussusception?

Dr. Hanelin: An intussusception may look like that, and if this is an intussusception, there is no indication of the nature of the underlying lesion, which might be a polyp or any number of other possibilities.

Dr. Mixer: I should first like to make a few general statements about the history and the available data. It seems to me that I can explain the dyspnea and profuse sweating on the basis of anemia. The borborygmus over the entire abdomen is consistent with the sudden influx of a great deal of irritating blood into the bowel. The port-wine-colored, liquid stools suggest that the bleeding was probably from higher than the distal large bowel. Certainly, bleeding from the distal half of the large bowel should be bright red in practically all cases. Of particular interest is the fact that there was no history of abdominal discomfort, nausea, vomiting or diarrhea. In view of the fact, therefore, that this appears to have been an intussusception it must have been an intermittent one.

The patient "had had a tubal insufflation because of sterility." I imagine that this is "red herring," but I tried to connect it with the remainder of the picture. About the only condition that could explain the sterility and bleeding is endometriosis with an implant in the small or large bowel. This patient was fifty-nine years of age and probably had had the menopause. Therefore, though she could have had obstruction from endometriosis in this area, it is practically impossible that she had bleeding from it.

The physical examination was negative except for some confirmatory evidence of anemia and blood in the bowel. The slight fullness in the right lower quadrant suggests slight obstruction. The shift in the neutrophils noted in the smear can be explained, I believe, on the basis of the bleeding into the gastro-intestinal tract. The remainder of the laboratory data were negative except for evidence of chronic blood loss. Though she had achlorhydria, the remainder of the picture was not that of per-

nicious anemia. It can occur in many other conditions. Primary achlorhydria does occur, but it is rare. Again the sigmoidoscopy ruled out disease in the last 18 cm. of the distal large bowel.

With those features and the findings in the x-ray examination in mind I believe that I can rule out certain conditions that cause massive gastrointestinal bleeding. Certainly, lesions in the proximal and distal gastrointestinal tract such as varices, atrophic or hypertrophic gastritis, esophageal hernias, peptic hypertrophic gastritis, esophageal hernias, peptic ulcers and neoplasms in the esophagus, stomach and duodenum and infections and neoplasms of the colon, at least the distal colon, can be ruled out. Also, there was no information on which to base a diagnosis of any of the various types of hemorrhagic disease, which can give rise to gastrointestinal bleeding. These are usually based on defects in the elements of the blood. Finally, there were no data suggesting that one of the intestinal-tract parasites was to blame. I have thus narrowed the problem down to the lesions that occur in the small bowel and proximal larger bowel. I believe I can reduce the possibilities further. In view of the lack of evidence of infection I can rule out regional enteritis, typhoid ulcers, tuberculosis, ulcerative colitis and hemorrhagic or bacillary dysentery, all of which may give rise to massive bleeding. Also, in the absence of pain and of marked symptoms of intestinal obstruction, it seems unlikely that an intussusception that was persistent caused this particular picture. Mesenteric thrombosis is probably unlikely, although mesenteric venous thrombosis can be insidious, prolonged and quite silent in onset.

This leaves me with a rather heterogeneous group of conditions that may conceivably have caused the bleeding. Neoplasms of the small bowel and perhaps of the large bowel frequently bleed, the benign ones being more likely to cause massive bleeding than the malignant ones. The benign lesions are most commonly found in the terminal ileum but can certainly occur in the area that this x-ray film seems to indicate as the source of the trouble. Moreover, they are frequently leading points for intussusceptions, which may reduce themselves and recur. The differentiation of the various types preoperatively is virtually impossible; sometimes, from the x-ray examina-



tion, the radiologist can distinguish the benign from the malignant ones.

The rupture of a blood vessel, as a result of either hypertension or arteriosclerosis, and aneurysms have been reported as causing massive gastrointestinal bleeding. An intramural cirroid aneurysm or the extramural aneurysms of hepatic, splenic, or mesenteric arteries can rupture into the gut. Trauma either externally or internally from a foreign body should be mentioned. Diverticula with or without evidence of diverticulitis occasionally bleed profusely. I recall seeing a patient who had repeated episodes of massive gastrointestinal bleeding for which no cause could be found. At the time of exploration a small diverticulum of the ascending colon, which contained a fecalith, a large eroded blood vessel and a blood clot, was found. That patient has had no bleeding since that diverticulum was removed six years ago. A number of physicians have pointed out that it is not commonly recognized that diverticulitis can result in massive bleeding.

Another lesion to be considered is Meckel's diverticulum or other forms of reduplication of the bowel. Meckel's diverticulum is found in the location of the suspicious area in the small bowel noted in the x-ray examination, but the symptoms more commonly occur in the younger than in the older age group. In some series as many as 60 per cent of them have been reported to cause hemorrhage through peptic ulceration, from aberrant gastric mucosa or as a result of impaired blood supply due to infarcted or intussuscepted bowel. It is possible that, if this was an intussusception, the Meckel diverticulum was leading it. The hemorrhage may be asymptomatic, although it is usually accompanied by pain. The Meckel diverticulum can produce rather puzzling x-ray defects, which change from time to time.

Perhaps I should have paid more attention to the abnormalities in the sigmoid, but they are not so evident in the films as they were described in the protocol. Possibly, the slight evidence for an infectious process should have been emphasized more; I am sure that there are many conditions that can cause massive bleeding that I have not mentioned. Harvey Stone, in an excellent paper on massive melena of obscure origin, classified these cases as those in which a lesion is found that may possibly account for the melena and those in which

no cause is ever found even sometimes at autopsy. Inasmuch as this is a clinicopathological conference I suspect that this case falls into the first category, and inasmuch as I have to make a choice, I shall say that the patient probably had a Meckel diverticulum.

Dr. Benjamin Castleman: Dr. Ali, would you like to comment?

Dr. Munawar Ali (from Pakistan): The only thing that I have in mind is an intussusception due to Meckel's diverticulum, which sometimes can give rise to episodes of bleeding.

Dr. Castleman: Dr. Chapman, you followed this patient? Would you like to say a word?

Dr. Earle M. Chapman: Dr. Hanelin discussed with me a third examination, but the anxiety of the patient and her insistence on going home were such a feature in this disease that we believed action had to be forthcoming immediately. Dr. Bartlett and I pressed her to have the operation, and we were indeed pleased at the outcome of it.

Dr. Warren Point: I have never personally seen or heard of tarry, black stools with a lesion below the ileocecal valve. It seemed to me that the definite history of black, tarry stools almost unequivocally placed the lesion above the ileocecal valve. Since, during the intubation, no blood was found in the stomach juices, we believed that the lesion was below the pylorus, and therefore, that it was a small-bowel lesion of some kind.

#### CLINICAL DIAGNOSIS

Polyp of the small bowel.

DR. CHARLES G. MINTER, JR.'S DIAGNOSIS  
Meckel's diverticulum.

#### ANATOMICAL DIAGNOSIS

Everted Meckel diverticulum, with mucosal ulceration.

#### PATHOLOGICAL DISCUSSION

Dr. Marshall K. Bartelett: I should like to emphasize two points. I think it was very astute of those who were taking care of this woman early in her hospitalization to obtain a gastric aspiration. Of course, if the bleeding had stopped, it might have been misleading, but usually it is helpful to have an aspiration done as soon as possible after entry. Also, prompt sigmoidoscopy gave another bit of information that was useful.

It seemed to us that, with the encouragement that Dr. Hanelin had given us and the fact that on two or three occasions the patient had had substantial gastrointestinal hemorrhages, it was safer to explore her than to treat her expectantly as she would have preferred. Our preoperative diagnosis was polyp of the small bowel, which we thought the lesion that Dr. Hanelin had shown us was.

We begin our exploration at the ileocecal valve and worked upward for 45 to 60 cm., where we came upon an intussusception of about 7 cm. in length. The leading point of the intussusception was a tubular structure about the size and shape of my little finger within the lumen of the bowel. The intussusception was easily reduced, and the bowel over the base of this intraluminal structure was opened. The lesion was readily recognized as a Meckel diverticulum, which was completely turned inside out. The mucosa at its tip was ulcerated. It was very simple to deal with technically and was excised.

Dr. Mixer: One more point: Stone, in his paper, emphasized that massive bleeding from the gastrointestinal tract of obscure origin had better be treated conservatively unless there is a definite indication for operation such as a demonstrable source for the bleeding or to save the patient's life. We have all seen these patients subjected to an exploratory laparotomy in which every inch of the bowel and the entire abdominal contents are examined thoroughly and yet nothing is found.

Dr. Castleman: The Meckel diverticulum was inverted into the lumen of the bowel and intussuscepted so that the mucosa was on the outside. The tip seemed like a little tumor, and it was ulcerated. At first glance I thought that this might be a lipoma that was the leading point for an intussusception, but this was because the serosal fat was on the inside. We looked carefully for gastric epithelium, although we did not expect to find any because the ulceration was not of the peptic type.

Dr. Chapman: May I make a comment on Meckel's diverticulum? I had occasion to read Meckel's book, published in 1806. Meckel was the third member of a German family of considerable renown. His father and grandfather had been physicians, surgeons and anatomists. Meckel, the third, described this anomaly to

which his name was attached, but if one reads carefully one finds that Meckel did not observe this diverticulum originally. Another man with an unpronounceable name that I have forgotten had described it; Meckel thought it was a "good thing" and publicized it. This often happens in medicine, I am told. Perhaps we do not think of Meckel's diverticulum often enough; 2 per cent of autopsies show a Meckel diverticulum. I had not been aware of this extraordinary frequency of Meckel's diverticulum in the whole population.

### URINE SUGAR ANALYSIS FOR DIABETICS

**T**HE film "Urine Sugar Analysis for Diabetics", developed in cooperation with the medical profession, is available at no charge to the Medical and Allied Professions through Ames Company, Inc.

The film was made as a visual aid to be used in the education of diabetic patients and shows the relationship between carbohydrates and insulin. It also explains in lay language the meaning of various diabetic conditions. It has been produced on 16 mm. film in color and sound track with a running time of approximately 10 minutes. Appropriate "hand-out" literature accompanies the film.

Showings at Diabetic Clinics, Diabetic Lay Societies and other diabetic groups must be requested by the Medical or Allied Professions to Ames Company, Inc., Elkhart, Indiana or an Ames representative.

### Book Review

**CLINICAL UNIPOLAR ELECTROCARDIOGRAPHY** by Bernard S. Lipman, M.D., and Edward Massie, M.D. 3rd ed. 397 pages. Illustrated. (1956) Year Book. \$7.50.

This popular, concise reference book has already reached a third edition. Simplicity and practicality are again keynotes. The procedures described are used by the authors in their teaching at Washington University and Emory University School of Medicine. New chapters of vector tracings have been added. An entire section has been added on congenital and acquired heart lesions, with occasional pre and postoperative tracings. This we recommend without reservations.

Stacey's Medical Books, San Francisco

# Woman's AUXILIARY

## LEGISLATION

**T**HE 85th Congress convened on January 3, 1957 for a two-year stay in Washington with Health again being a major issue.

Up to this time, there has been nothing for us to take action on, however, the following bills have been introduced, which the AMA is vitally interested in and we will undoubtedly be called upon in the near future to put pressure on our Legislators and Congressmen regarding these bills.

Another version of the Wagner-Murray-Dingell bill, which was successfully defeated in 1943, is again before Congress. Because some sections have since been enacted into law piecemeal, the 1957 version is minus these features: education of health personnel, medical research, Hill-Burton expansion, aid to rural and shortage areas, more state grants for health work, and grants for maternal and child health. The bill provides a contributory system of health insurance covering the working population similar to Social Security. Covered workers and their families would be eligible for preventive and diagnostic exams, lab and x-ray services, hospitalization up to 60 days, dental services, more expensive drugs, special appliances and eye-glasses. A separate bill to be introduced later would charge workers 1½% of earnings or up to \$90 a year with employers contributing a like amount.

Senator Langer (R - N. D.) has introduced a bill eliminating the starting age for disability payments under Social Security (now age 50). It would also eliminate a provision of the present law that reduces Old Age and Survivors Insurance payments to the extent the beneficiary also is receiving money under other Government programs, such as VA or workmen's compensation. If you will remember this age reduction for disability payments was predicted last year when H. R. 7225 was being so vigorously fought.

The Jenkins-Keogh bills would permit the self-employed, including physicians, to annually

deduct from adjusted gross income, as much as 10% of net earnings or \$5,000 whichever is the lesser, when paid into retirement plans. The AMA is in favor of this bill.

Senator Bricker (R - Ohio) is renewing his efforts to protect domestic law against possible encroachment by treaties. He has presented a new version of a constitutional amendment, an earlier version of which was defeated in the Senate by a one-vote margin in 1954. The AMA supports the Bricker Amendment in principle. The new version reads:

SECTION 1. Provision of a treaty or other international agreement not made in pursuance of this Constitution shall have no force or effect. This section shall not apply to treaties made prior to the effective date of this Constitution.

SECTION 2. A treaty or other international agreement shall have legislative effect within the United States as a law thereof only through legislation, except to the extent that the Senate shall provide affirmatively, in its resolution advising and consenting to a treaty, that the treaty shall have legislative effect.

SECTION 3. An international agreement other than a treaty shall have legislative effect within the United States as a law thereof only through legislation valid in the absence of such an international agreement.

SECTION 4. On the question of advising and consenting to a treaty, the vote shall be determined by Yeas and Nays, and the names of the Senators voting for and against shall be entered on the Journal of the Senate.

The foregoing is just a brief resume of a few of the more pertinent bills which have been introduced in this session of Congress and that we feel the Woman's Auxiliary should be familiar with. If the AMA requests us to take any action on any of the bills now in Congress, you will be notified.

Mrs. Paul S. Causey, Chairman  
Legislation Committee  
Woman's Auxiliary to the Arizona  
Medical Society



## FREE One-Hour VALIDATED PARKING For Patients

### PROFESSIONAL BUILDING

**The Southwest's Foremost  
MEDICAL-DENTAL CENTER**

A modern, streamlined structure . . . in the heart of the downtown shopping district . . . attracts patients from every point of the compass . . . immediately accessible to banks, stores, legal firms, theaters and restaurants . . . adjacent to all transportation facilities . . . one of the best known landmarks in the Valley of the Sun!

**MONROE AT CENTRAL**

Free one-hour validated parking at VNB Car-Park,  
First St. and E. Van Buren, for patients.

## YOUR OFFICIAL PROFESSIONAL GROUP ACCIDENT AND SICKNESS PLAN

APPROVED AND RECOMMENDED BY COUNCIL AND THE  
MEDICAL ECONOMICS COMMITTEE

**A PLANNED INCOME PROTECTION  
PROGRAM DESIGNED FOR MEMBERS OF  
THE ARIZONA MEDICAL ASSOCIATION, INC.**

FOR ADDITIONAL INFORMATION AND OFFICIAL  
APPLICATION CONTACT

**McCLURE-WINGAR INSURANCE SERVICE**

State Representatives

**NATIONAL CASUALTY COMPANY**

GEORGE B. LITTLEFIELD

DWIGHT McCCLURE  
AM 6-8408

RONALD E. DEITRICH  
Pima County Representative

W. J. WINGAR  
3424 N. Central, Phoenix

2400 E. Grant Road, Tucson

Tucson 6-4373